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July, 1953

SOAP and Sanitary Chemicals

In this issue...

Base detergent sales growth on studies of field reports

* * *

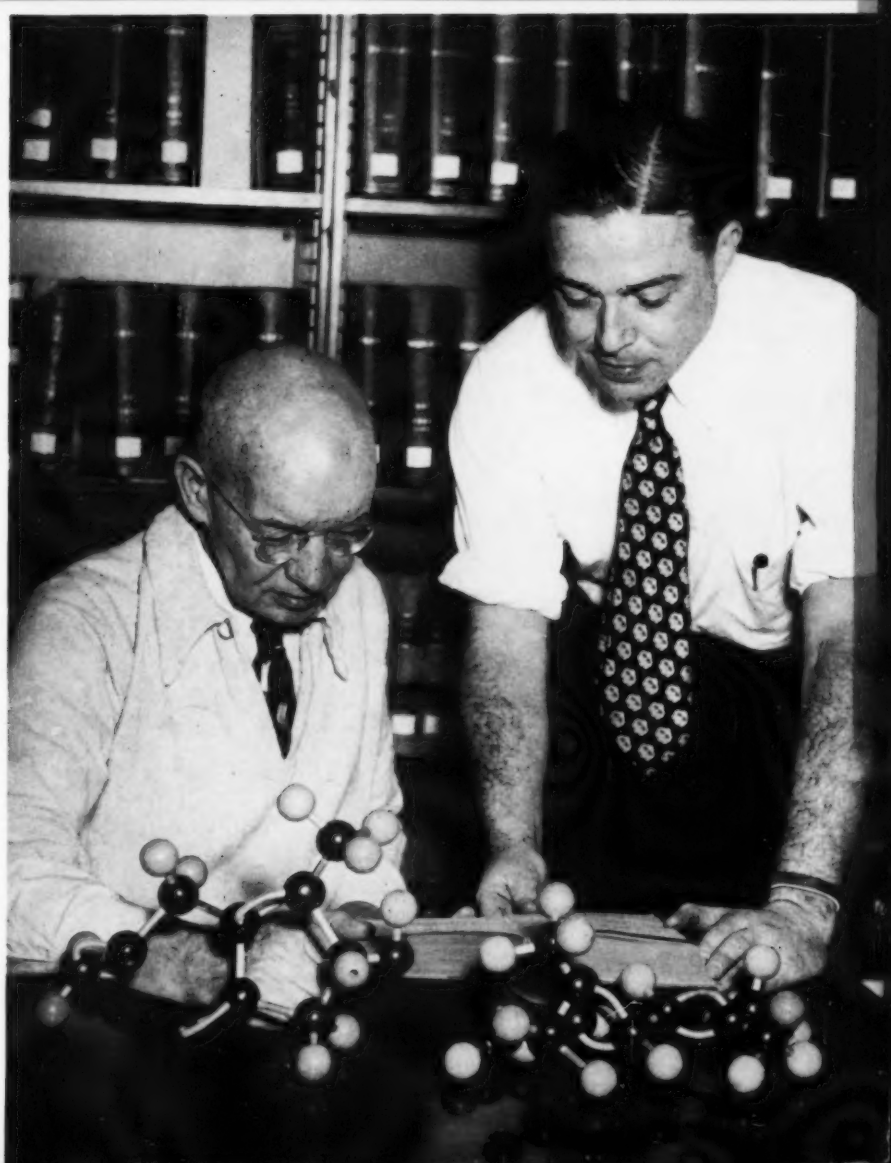
Insecticide fly resistance, —fact, or poor sanitation?

* * *

How a sanitary supply jobber makes sales contests pay off

* * *

What should soap suppliers know about wool scouring?



Cover photo . . . Co-discoverers of allethrin: Dr. F. B. LaForge, left, and Milton S. Schechter of U. S. Dept. of Agriculture, were present for ceremonies marking capacity production of allethrin at U. S. Industrial Chemical's plant in Baltimore. Details on page 140.

1-S

Now a New Form...

SOLVAY
T. M. REG. U. S. PAT. OFF.

small flake
CAUSTIC POTASH

SOLVAY

SOLVAY CAUSTIC POTASH
Low in Iron and
other impurities
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- **FEBRUARY SALES UP 100.3%**
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- **APRIL SALES UP 153+ %**

★ *All sales compared with same period 1952.*

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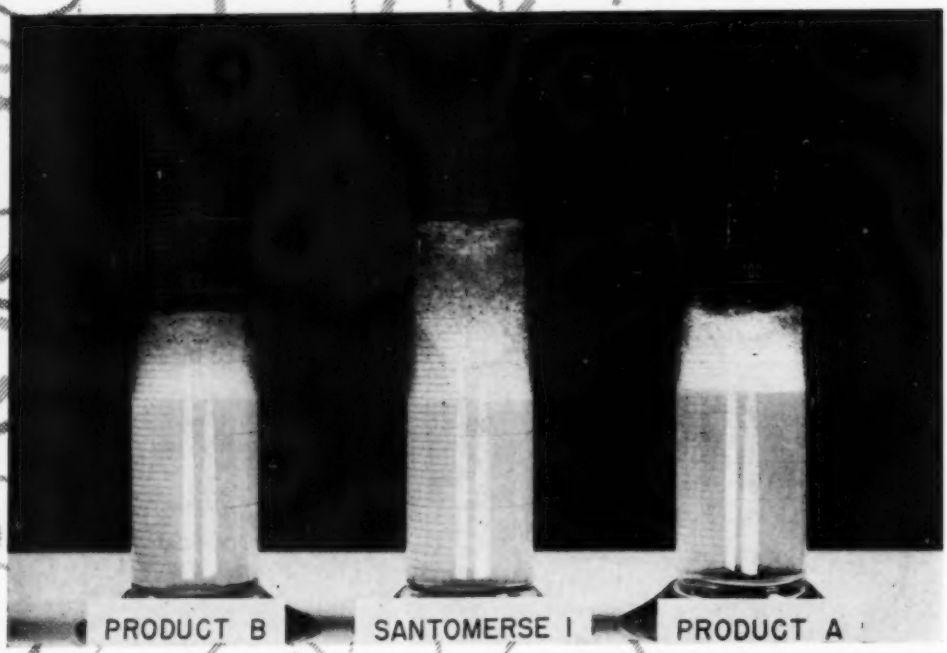
Obviously, one is superior



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Superior Surface Activity . . . Santomerse No. 1 cuts surface tension to a minimum.

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SERVING INDUSTRY...
WHICH SERVES MANKIND

SOAP and Sanitary Chemicals

Volume XXIX, No. 7 July, 1953

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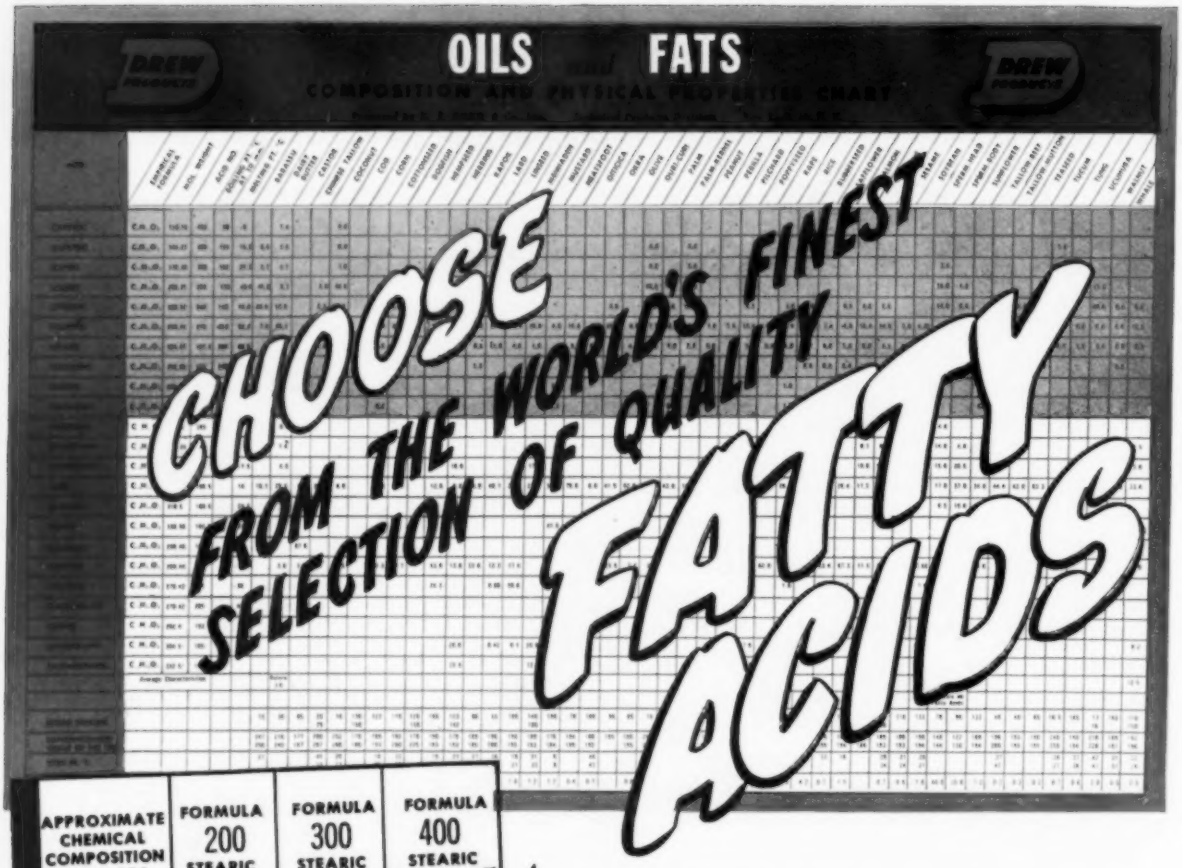
Publication Office
254 W. 31st St., New York 1, N. Y.

Chicago Office
333 N. Michigan Ave.

Subscription rates: U. S., $4.00 per year; Canadian, $5.00; Foreign, $6.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter June 16, 1949, at the Post Office, New York, N. Y., under the act of March 3, 1879.



APPROXIMATE CHEMICAL COMPOSITION AND ATA	FORMULA 200 STEARIC ACID 65%	FORMULA 300 STEARIC ACID 70%	FORMULA 400 STEARIC ACID 85-90%
MYRISTIC	6.0%	6.0%	6.0%
PALMITIC	20.0%	21.0%	6.0%
STEARIC	70.0%	70.0%	85.0%
OLEIC	4.0%	3.0%	3.0%
FFA	99-103	99-103	99-103
TITRE°C.	56-57	58 Min.	60-64
IODINE VAL.	6 Max.	4 Max.	3 Max.
ACID VAL.	196-204	196-204	196-204
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Take STEARIC ACIDS, for instance . . .

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From FIRE FIGHTING to FACE FIXING

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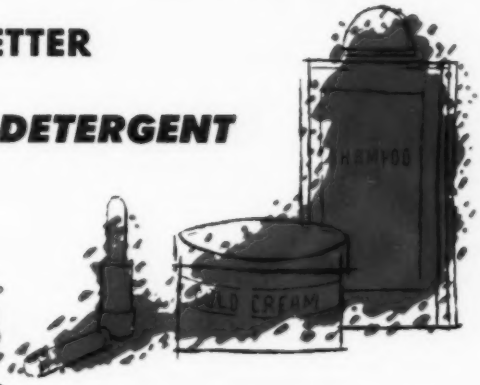

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(50% Olive Oil Base)

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Liquid Toilet Soaps
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For 30 years, exclusively manufacturers of soap specialties for the jobber and converter.

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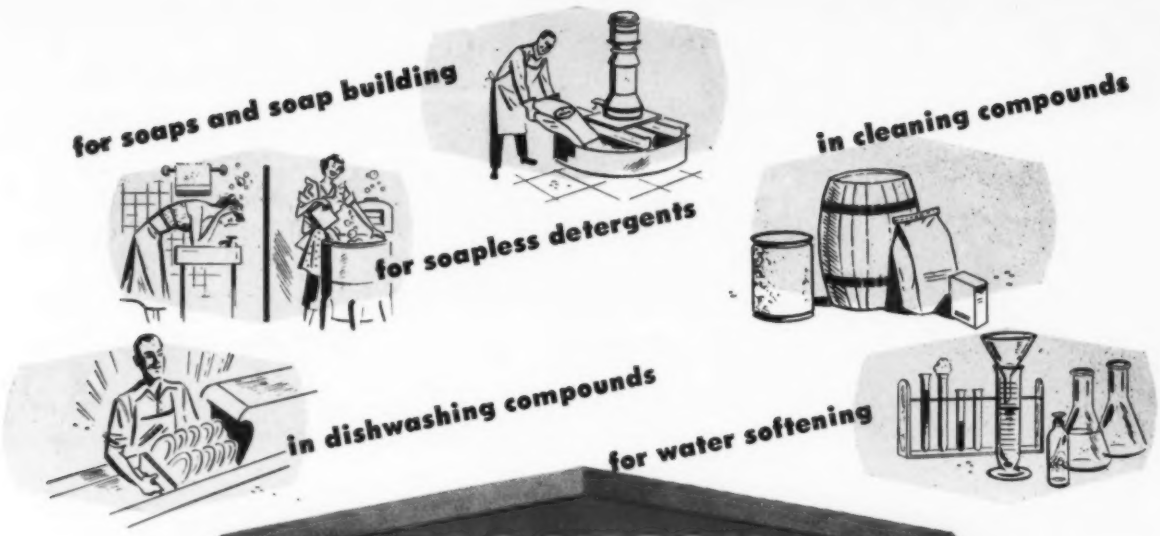

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- Disodium Phosphate, Crystalline
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Candy's Wax with LUDOX* added

Candy's NEW NAME for the new floor treatment for

Increased Anti-Slip

Greater Durability

Lower Floor Maintenance Cost

2 GRADES

CAND-DOX #CS
Originally offered as CANDY'S SUPREME Special WR-AS in July 1950

CAND-DOX #BB
Originally offered as BRIGHT BEAUTY Special WR-AS in June 1951

CAND-DOX #CS and BB are made in any total percentage of solids 8% to 18% and in 24% concentrate.

CAND-DOX #CS is slighty more durable and higher priced than CAND-DOX #BB in like percentage of total solids.

floor treatments represent the finest products available where a higher than minimum recognized standard of anti-slip quality is desired. The resultant films from the use of these products are *HARD*, non-tacky, and will withstand wear, dirt and discoloring traffic marks.

DURABILITY and ANTI-SLIP . . . CAND-DOX products include a compensating factor—LUDOX*—in itself harder than wax. The addition of LUDOX* to the proper wax bases, perfected purposely to accomodate this additive, causes a greater coefficient of friction and therefore greater safety underfoot.

WATER RESISTANCE and REMOVABILITY in proper balance are very important in every maintenance program. In the development of the wax emulsion bases that go into CAND-DOX floor treatments, the important all-around high qualities of our (Standard) CANDY'S SUPREME, BRIGHT BEAUTY and other well known and accepted waxes were taken into consideration and accomplished in the final CAND-DOX products containing the new bases plus additive.

BEAUTY of floors maintained with CAND-DOX floor treatments, which are both hard and very anti-slip, is no less than remarkable and equal to the lustre for which our products have long been famed. The same buffing can be applied, if desired, and the same gloss will result.

Our policy in regard to use of new additives to our floor waxes has always been clear-cut . . . if a definite improvement can be accomplished we endeavor to formulate and combine new ingredients in such a way as to *conform to our very high standards of product function.* These standards in no case are ever sacrificed to climb on any "bandwagon" of *sales* appeal.

The laboratory work in ours or any organization is very important and the starting point for research and development of new useful products. However, FIELD TESTING is the real proof of the real value of any floor treatment. CAND-DOX floor treatments have been thoroughly field tested and are now being sold in quantity by many of our distributors, with success—again proving merit in FIELD USE.

** CAND-DOX contains CANDY'S wax emulsion with LUDOX* added in such proportion as to *fully* deliver the usefulness of this additive to floor wax. *Trademark of E. I. du Pont de Nemours & Co., (Inc.) Reg. U. S. Pat. Off.

CAND-DOX is available for private brand resale and is sold only through distributors except for experimental accounts in Chicago essential to research.

Why not write us today for *free* samples and prices so that you can make your own FIELD TESTS?

The most complete line of water emulsion waxes of the highest quality available anywhere

CANDY'S SUPREME (Standard)
CANDY'S SUPREME Special WR
CANDY'S DELUXE
BRIGHT BEAUTY (Standard)
CANDY'S #640
#CS CAND-DOX
#BB CAND-DOX

All the above CANDY products are listed by Underwriters' Laboratories as "anti-slip floor treatment materials."

Wax Specialists for over 60 years

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2515 W. 35th ST., CHICAGO

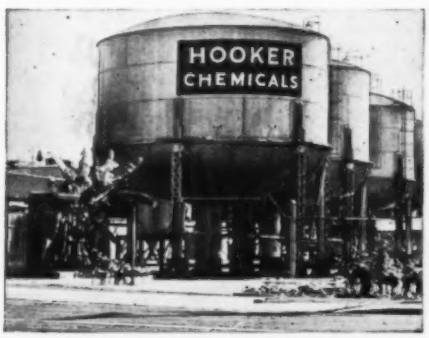
Umpty-thousand tons of HOOKER CAUSTIC *Coming up!*

CONVEYORS feed salt to brine tanks for caustic soda and chlorine production in Hooker electrolytic cells.

We will produce more caustic soda this year than ever before in our history.

This would be meaningless, except that it expresses our belief in the future of the chemical industry —and our readiness to keep growing with it as one of your major suppliers of chemical raw materials and intermediates.

Today, more than ever, you can count on Hooker for dependable supplies of caustic soda, chlorine and many other industrial chemicals.



CAUSTIC SODA DISTRIBUTING STATION

5 Reasons for Specifying HOOKER Caustic

1 Large-tonnage production—The biggest in nearly 50 years—means dependability of supply for you.

2 Quality caustic in the form to meet your needs 50% and 73% liquid; flake; solid. Drums, tank cars, barges. An impressive background of experience in serving large users of caustic.

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4 Fast, dependable deliveries—More facilities than ever before for getting caustic to you, on schedule.

5 If you use caustic in l/c/l quantities, you can now purchase caustic from a Hooker plant, warehouse or jobber near you. Write us for name and address of your nearest Hooker jobber.

FOR ANALYSES, PRICES, DELIVERY INFORMATION,

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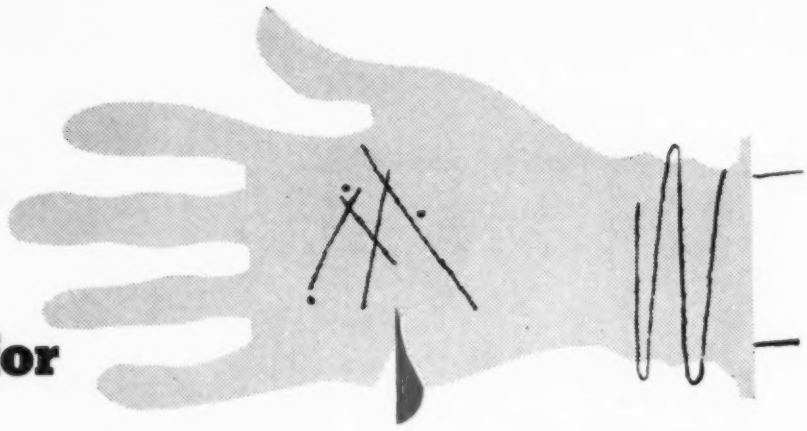
From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

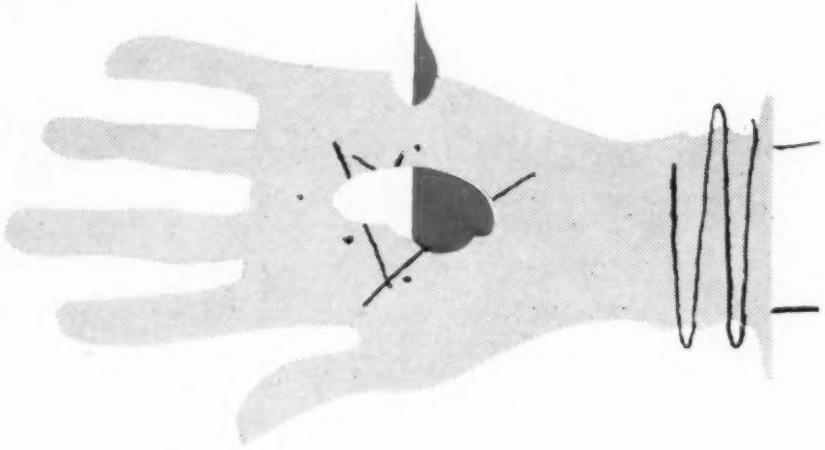
NIAGARA FALLS • TACOMA • NEW YORK • CHICAGO • LOS ANGELES

HOOKER CHEMICALS 2-1934

Kid Gloves for



A. Gross Coconut Fatty Acids



A. GROSS & COMPANY's advanced techniques in the processing, packaging and shipping of COCONUT FATTY ACIDS are your assurance of unmatched color, stability and performance.

A. GROSS uses the most modern aluminum and stainless steel processing equipment, packages carefully, and ships in lined drums, aluminum tankwagons and tankcars.

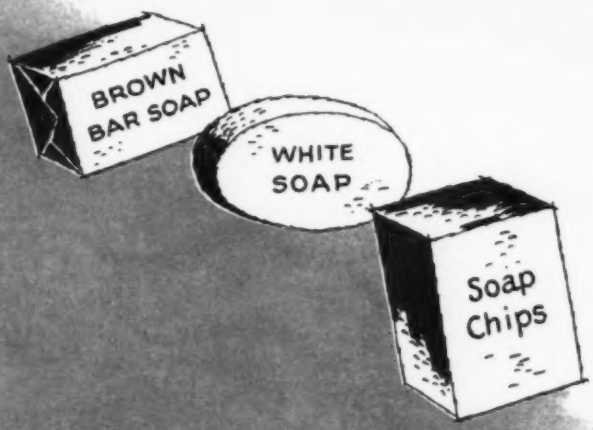
When you receive our COCONUT FATTY ACIDS for your manufacture, we know that this "kid glove handling" will insure you of resins, cosmetics, detergents and shampoos of highest quality.

Send for samples and our booklet *"Fatty Acids in Modern Industry"*.

A. GROSS & COMPANY

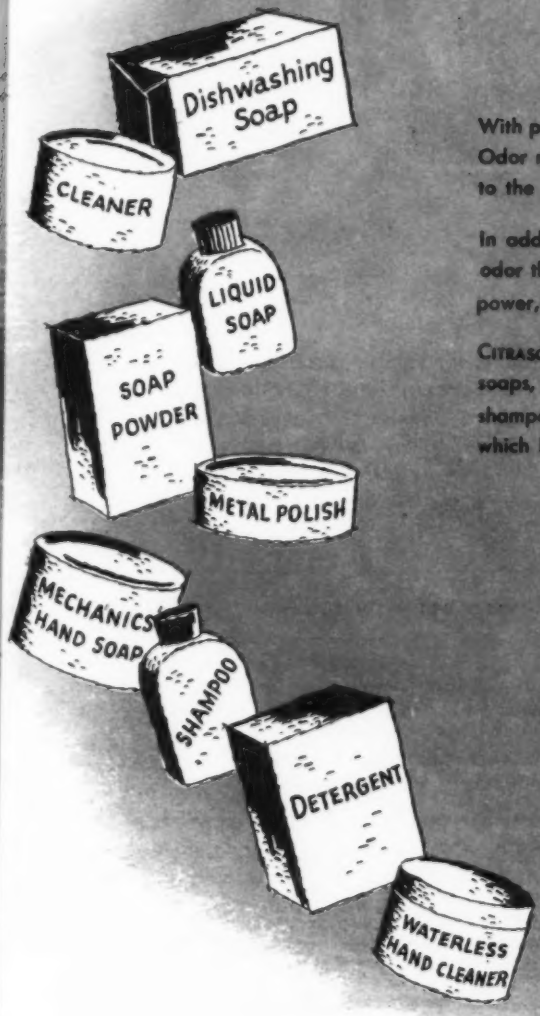
295 MADISON AVENUE, NEW YORK 17, N. Y.

Manufacturers since 1837 • *Factory: Newark, N. J.* • *Distributors in Principal Cities*



A POWERFUL, REFINED *Lemon-Type Reodorant*

more stable... more uniform in odor value...
and only ⅓ the cost of natural Oil of Lemon!



With prices of natural Oil of Lemon going sky-high, using our new CITRASCENT Lemon-type Odor means a saving of approximately two-thirds—a figure that is *not* subject to the erratic price fluctuations so characteristic of the natural Oil.

In addition to its economical cost—CITRASCENT has a sweeter, much more refined odor than Oil of Lemon. It provides freedom from discoloration in soap... has greater power, lasting qualities and lift... is more uniform and stable in odor value!

CITRASCENT may be used in brown bar soap, white soap, soap chips, dishwashing soaps, cleaners, liquid soaps, soap powders, metal polishes, mechanics' hand soap, shampoos, detergents, waterless hand cleaners and in many other products which have an objectionable odor. It is available at the following prices:

1 lb. lots	$2.15 lb.
5/10 lb. lots	$1.90 lb.
25 lb. lots	$1.85 lb.
50/100 lb. lots	$1.80 lb.
400 lb. drums	$1.75 lb.

F.O.B. New York

Why not make your own tests! We'll be glad to send you free samples. No obligation, of course.

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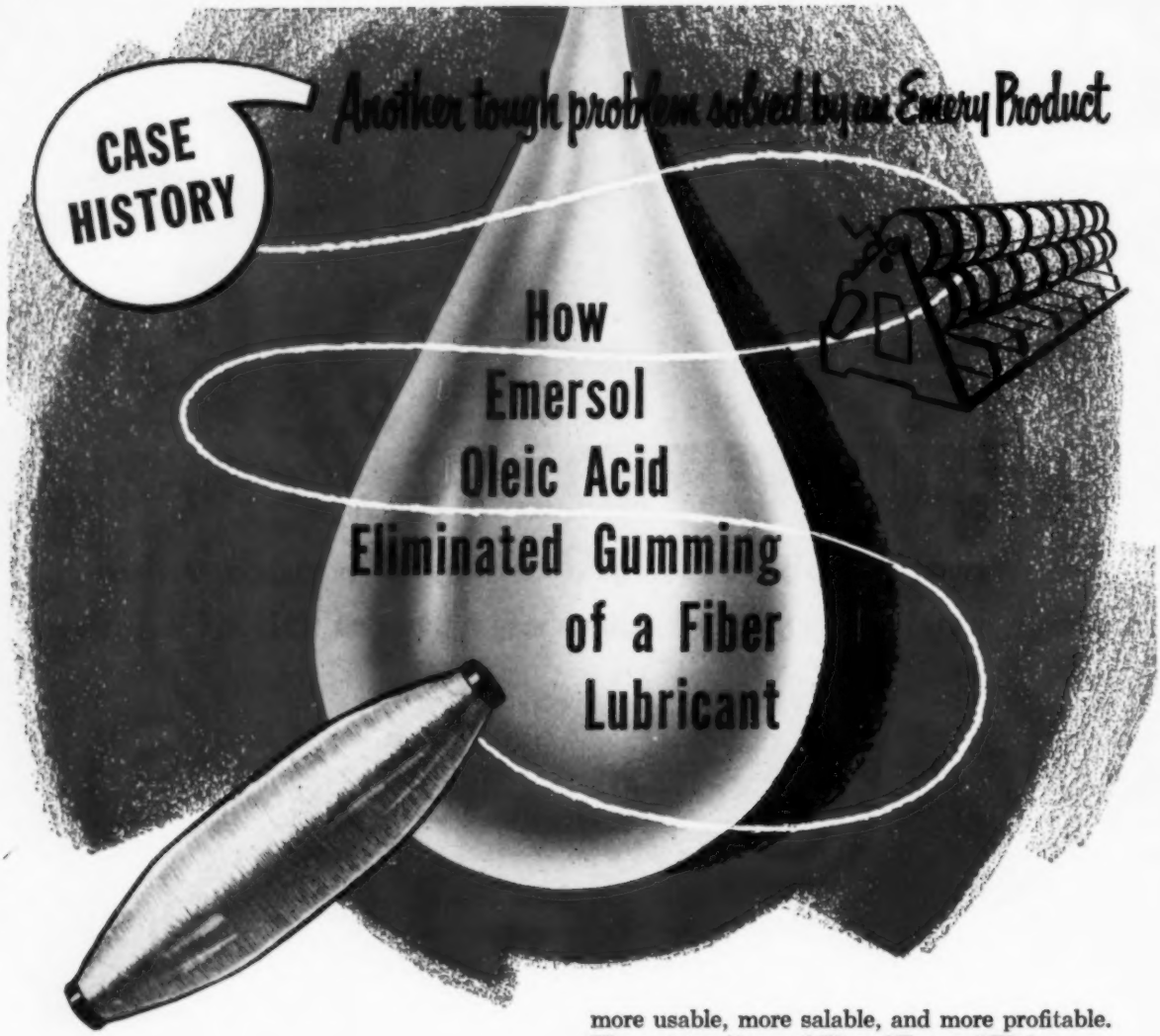
CASE HISTORY
Another tough problem solved by an Emery Product
How Emersol Oleic Acid Eliminated Gumming of a Fiber Lubricant

Because of its excellent lubricating and emulsifying properties, oleic acid was chosen as a base for this manufacturer's fiber lubricant. Unfortunately, when applied to yarns, the oxidation promoted by the large surface area induced gumming, accompanied by processing difficulties and uneven dyeing. But... the problem was solved when ***stable*** Emersol 221 White Elaine was substituted for an ordinary double-distilled oleic acid. Gumming difficulties ceased immediately.

Even where gumming is not of primary importance, their ***color stability and resistance to rancidity*** are extra benefits that make any product more usable, more salable, and more profitable. The outstanding stability of Emersol Elaines can mean much to you. Since they cost no more than ordinary grades, it will always pay you to use Emersol Elaines—available in all grades to suit your specific need. Next time, everytime, buy Emersol Oleic Acids!

GET EMERSOL 233 WHEN YOU NEED THE *BEST!*

Emersol 233 LL Elaine (low-linoleic) is the purest oleic acid available commercially. Its extremely light color, outstanding color stability, superior resistance to rancidity, and low content of poly-unsaturated acids will make your quality products even better. For the ***best in oleic acids,*** buy Emersol 233 LL Elaine!

Emery

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Plastolein Plasticizers
Twitchell Oils, Emulsifiers

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Schibley & Ossmann, Inc., Cleveland • Ecclestone Chemical Co., Detroit

Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

RENEX 25

A light yellow powder, 100% salt-free organic; based on polyoxyethylene ester of mixed fatty and resin acids. Low sudsing action especially applicable for uses where foaming impedes mechanical cleaning.

Easy-to-mix, non-ionic RENEX® powdered detergents

RENEX 35

A pure white powder, 100% salt-free organic; based on polyoxyethylene ether alcohol. Has high foaming index and emulsifying power . . . exceptional detergency on wool. Its high acid stability proves advantageous for use in acid cleaners.

These free-flowing powders are exceptionally easy to mix into dishwashing and laundering compounds, general household cleaners, detergent sanitizers, dairy cleaners and scores of other preparations.

Their many advantages include protein solubilizing action, compatibility with germicides and other ingredients. You have a choice of either low or high foaming index. Like all members of the Renex family, these powder forms build high detergency at low cost.

Write today for samples, and for full technical data.

INDUSTRIAL CHEMICALS DEPARTMENT

ATLAS POWDER COMPANY

WILMINGTON 99, DELAWARE

offices in principal cities

ATLAS POWDER COMPANY, CANADA, LTD.
BRANTFORD, CANADA

TEAMED...
for quality detergents

PQ Silicates and Synthetics

• Top performance from this winning team is a matter of record. PQ Silicates put power action into synthetic detergents; for instance, in the maximum removal of soil.

Soil removal has been more than doubled by replacing two-thirds of the sodium sulphate with metasilicate (Metso). Nonionic as well as anion and cation active compounds become better cleansers by adding silicates of soda. Thus you have an improved detergency at a minimum price as PQ Silicates are basically low in cost.

For mechanical mixtures or liquid admixes you will find the right silicate in the PQ line. May we discuss your needs?

PQ Silicates are also protectors against corrosion of aluminum, tin, copper, zinc alloys by the synthetics and complex phosphates.

METSO

PQ Silicates of Soda

METSO® DETERGENTS

PQ

PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Bldg. • Philadelphia 6, Pa.

After Closing . . .

Purex Moves to Dismiss

Purex Corp., South Gate, Calif., recently filed a motion with the Federal Trade Commission, Washington, D. C., to dismiss a complaint charging it with price discrimination in the sale of "Purex" bleach used in disinfecting and bleaching clothes.

F. T. C. May Drop Soap Case

The Federal Trade Commission announced June 30 that its hearing examiner has recommended dismissal of a price discrimination complaint against three soap manufacturers. The complaint, filed in 1948, charged Lever Brothers Co., New York; Procter & Gamble Co., and its subsidiary, Procter & Gamble Distributing Co., both of Cincinnati; and Colgate-Palmolive-Peet Co., Jersey City, N. J., with making unfair advertising allowances and discriminatory price deferentials.

Examiner Earl J. Kolb recommended dismissal of the charges on grounds that the evidence did not sustain the allegations. His decision will become final in 30 days unless an appeal is made to the full commission or unless the commission decides to review the case on its own.

The soap manufacturers were accused of granting allowances to buyers to cover price declines in warehouse stock. The purpose, the complaint said, was to pass on delivery costs to the customer and to induce the trade to maintain an adequate stock reservoir. The companies also were accused of adopting a promotional plan, known as "count and recount," intended to stimulate the movement of goods which move slowly. Another section charged the companies gave allowances for newspaper advertising to some customers but not to others.

The F. T. C. complaint is not to be confused with an anti-trust action undertaken by the Department of Justice in a civil suit, following a grand jury refusal to indict the three soap companies and others in a criminal suit filed last year.

Nixon Hercules Chairman

Charles A. Higgins resigned late last month as chairman of the board of Hercules Powder Co., Wilmington, Del., a post he had held since 1944, and has been succeeded by Anson B. Nixon, a vice-president. Mr. Higgins has also resigned as a member of the company's finance committee, but will remain on the board. At the same time, it was announced that Albert E. Forster, president, had been elected a member of the finance committee. The new chairman had been vice-chairman since last year, and previously had been general manager of both the naval stores unit and cellulose products department. He became a director in 1932.

ANSON B. NIXON

Glycerine Expansion Cut

The defense expansion goal for glycerine productive capacity has been decreased by 10 million pounds from the original target, the Office of Defense Mobilization, Washington, D. C., announced recently. The new goal calls for capacity to produce 268 million pounds annually by Jan. 1, 1955, or 43 million pounds above the Jan. 1, 1951, capacity. Of the total, 128 million pounds is to be in synthetic or fermentation glycerine capacity. The goal specifies no increase in the production of natural glycerine as a by-product of soap.

ODM pointed out that natural glycerine capacity at present is greater than the target, but the agency estimates the yield will drop to about 140 million pounds by 1955 as a result of the growing displacement of soap by synthetic detergents.

Label Requirements Eased

The New York City Fire Department recently issued new modifications for the type size requirements of warning statements on labels of combustible materials. The sizes required are in some cases slightly larger than originally suggested by industry, but represent a reduction in sizes from those originally required by the fire department. Printing in red is no longer required.

Grocers Hear Lachner

Methods of training and handling salesmen was the subject of a discussion by Marshall Lachner, sales manager of the soap department, Colgate-Palmolive-Peet Co., Jersey City, N. J., at the midyear meeting of Grocery Manufacturers of America, Inc., held at the Greenbrier Hotel, White Sulphur Springs, W. Va., June 23-24.

FTC Cites Antell Claims

Advertising claims of Charles Antell Co., Baltimore and T.A.A., Inc., New York, makers of "Charles Antell Formula #9," "Charles Antell Shampoo," and "Hexachlorophene Soap," were cited as being misleading and deceptive in a complaint issued recently by the Federal Trade Commission, Washington, D. C. Representations which the FTC alleged to be false included claims that the main ingredient of the formula was lanolin; that its use would cause the hair to curl, and that it would prevent the loss of hair and baldness. The commission said that it also believed false the claims that the soap would remove 25 times more dirt from the skin than ordinary soap and would prevent the development of pimples and other such skin blemishes.

Hollingshead Advances Two

R. M. Hollingshead Corp., Camden, N. J. recently announced the appointment of Joseph L. Laputka as treasurer and secretary and Lloyd L. Entenmann as controller and assistant secretary. Mr. Laputka, former company credit manager, succeeds C. R. Ferris, retired, while Mr. Entenmann succeeds J. R. Flynn. In his new capacity, Mr. Laputka is responsible for the activities of the purchasing, traffic, order, and credit departments, in addition to the company's general financial administration. He joined Hollingshead as credit manager in 1947. Mr. Entenmann joined the company as a cost department clerk in 1940 and held several positions before being named head of the statistical department. Earlier this year he was named to the post of assistant controller.

New Non-Toxic Germicide

A new antiseptic agent with a deodorizing quality that is said to be capable of ridding 98 percent of skin bacteria has recently been introduced by Hilton-Davis Chemical Co., Cincinnati. Known as "Lorothidol," and trade-marked under the brand of 2,2-thiobis (4,6-dichlorphenol), the compound was developed following tests with chlorinated phenol agents. It is expected to be used in soaps, creams, lotions, shaving creams and shampoos, according to Nelson S. Knaggs, Hilton-Davis vice-president in charge of sales. The compound is said to have germ-killing effectiveness; good adherence to the skin; negligible toxicity; no odor so that it combines easily with perfumes and needs no masking and there are no sensitizing effects on the skin. It also combines easily with detergents. It may be dissolved in alcohol, or a similar solvent, and metered in. Tests reveal that it may prevent mildew by arresting the growth of molds and fungi in fabrics.

Taylor Heads Mathieson PR

Robert L. Taylor has been appointed director of public relations and James V. Shannon, Jr., as his assistant, it was announced recently by Mathieson Chemical Corp., Baltimore. Mr. Taylor formerly was vice-president of Hill & Knowlton, Inc., and previous to that was editor of *Chemical Industries*. In his new position, Mr. Shannon supervises public relations activities for the company's New York division, including E. R. Squibb & Sons division.

Dr. Robert A. Jones, who has just been appointed technical director of Puritan Chemical Co., Atlanta, was formerly with Stauffer Chemical Co. See page 139.

Stonoga Joins Utility

Ben Stonoga has recently been appointed director of sales, Utility Chemical Co., Paterson, N. J., announced recently. He formerly held various sales executive posts with Virginia-Carolina Chemical Corp., Richmond, Va., and Klenzade Products, Inc., Beloit, Wis. Utility manufacturers soaps, chemical specialties and sanitation chemicals.

Record Can Production

Can manufacturers have watched the use of their products soar to more than 33 billion cans yearly—up some 40 percent since the end of World War II, according to a recent statement by Robert S. Solinsky, president of National Can Corp., New York. He predicted production will reach a new record this year.

Reilly Names Floyd

Appointment of Moore F. Floyd as its sales representative in Texas, replacing Charles L. Slover, was announced recently by Reilly Tar & Chemical Corp., Indianapolis. Mr. Floyd is making his headquarters at Dallas. He previously was connected with Magnolia Petroleum Co., Midland, Tex. Mr. Floyd is a graduate of Texas A. & M.

New Universal Distributor

A. J. Lynch & Co., Los Angeles, have been appointed California distributor for "Udet" and "Udex," two alkyl aryl sodium sulfonate synthetic detergents, and "Udesolve," a line of aromatic hydrocarbon solvents, according to a recent announcement by B. R. Bryant, general manager of Universal Detergents, Inc., Long Beach, Calif. Los Angeles area sales representation is handled out of the main office at 2424 Enterprise Ave., headed by Tom De Temple. H. G. Pratt directs the northern California operations from 1495 Custer Ave., San Francisco.

At the same time, the company announced the release of a new technical bulletin describing the various properties and applications of "Udet," "Udex," and "Udesolve." The two basically different alkyl aryl sodium sulfonate detergents, "Udet" and "Udex," are made in both liquid and powder form. "Udesolve" is a line of four different aromatic hydrocarbon solvents for industrial application. Copies of the literature may be obtained by requesting technical bulletin #55 from Universal Detergents, Inc., 1825 East Spring St., Long Beach.

Velsicol Expands Plant

The completion of a $2,000,000 addition to its Memphis, Tenn. plant was announced recently by Velsicol Corp., a division of Arvey Corp., Chicago. The addition has reached full-scale production of chlorine, liquid caustic, hydrogen gas and bleach. The new wing also includes a salt storage and brine preparation area, a caustic preparation area, a caustic evaporation building, a rectifier installation, and expanded electrolytic cell room, and a modernized chlorine liquefaction building. The new unit produces 88,000 pounds of liquid chlorine, and 110,000 pounds of caustic per day, requiring 180,000 pounds of raw salt materials.

Zonite Appoints Wait

Appointment of John D. Wait as general manager of manufacturing, was announced recently by Zonite Products Corp., New Brunswick, N. J.

New dry hypochlorite bleach of Purex Corp., South Gate, Calif., said to be the only one of its type, was announced recently. At left is front view of label, while back of label at right shows detailed information on use. Package features a sprinkle-pour membrane top, which is glued over the top of the jar. There are three small perforations on one side of the membrane for sprinkling and one large opening on the other side for pouring. Jar was manufactured and designed by Latchford-Marble Glass Co., Los Angeles, and is also being made by Obear-Nester Glass Co., E. St. Louis, Ill. Phoenix Metal Cap Co., Chicago, and Western Crown Cork & Seal Co., Los Angeles, are supplying the caps. Labels are printed by Stecher-Traung Lithograph Co., San Francisco.

Loeffler Joins FMC

Alfred T. Loeffler has been named assistant vice-president of its chemical divisions, Food Machinery and Chemical Corp., San Jose, Calif., announced recently. Mr. Loeffler becomes administrative assistant to Ernest Hart, executive vice-president of chemical divisions, with headquarters in its New York offices.

Mr. Loeffler previously was associated with Hooker Electrochemical Co., Niagara Falls, N. Y., following which he joined Monsanto Chemical Co., St. Louis, as general branch manager in New York. In 1951 he was appointed chief of the chemical branch of the Office of Price Stabilization in Washington, D. C. Returning to Monsanto, he was named director of development of the organic chemicals subdivision at St. Louis. A graduate of both the University of Rochester and Harvard University's School of Business Administration, he is a past president of the Salesmen's Association of the American Chemical Industry.

Chemists Honor Chew

A silver tray engraved with over 50 names of fellow diners at the "round table" was presented to John A. Chew, at a luncheon held recently in the New York Chemists' Club. The presentation was made in Mr. Chew's honor to commemorate his 50 years in the chemical industry.

Emulsol Shifts Sales Staff

Appointments to its newly departmentalized sales organization were announced recently by Emulsol Corp., Chicago. M. H. Joffe was named vice-president in charge of sales; Carl F. Piowaty, vice-president in charge of egg solids products; E. S. Thayer and S. Epstein were placed in charge of chemical products sales, with Arthur Rabinovitz, who recently joined Emulsol.

Monsanto Names Lum

James H. Lum has been appointed director of development for its organic chemicals division, Monsanto Chemical Co., St. Louis, announced recently. He succeeds Alfred T. Loeffler, who has accepted an executive position with the chemicals division of Food Machinery and Chemicals Corp., New York. Mr. Lum has been with Monsanto since 1936 when the company acquired the Thomas & Hockwalt Laboratories at Dayton and formed its central research department. Since 1945 he has served successively as assistant research director; executive director of the Clinton National Laboratories at Oak Ridge, Tenn.; managing director of Monsanto's Australian subsidiary; and development manager of the phosphate division. He received a B.S. degree from Pennsylvania State College in 1925 and a Ph.D degree from Yale University in 1932.

F. Semler Dietrich Dies

F. Semler Dietrich, 57, vice-president in charge of merchandising of Mennen Co., Morris Township, N. J., died recently in the Mountainside Hospital, Montclair, N. J. He joined Mennen in 1933 as advertising manager, and was named general sales and advertising manager of the company in 1936, second vice-president in 1938, and vice-persident in charge of merchandising in 1950. He attended Princeton University. Surviving are his widow, Dorothy, and a son, F. Semler Dieterich, Jr.

TV Costs Soapers More

Soap manufacturers expended more money during the first quarter of this year for national network television than they spent for the same period in 1952, according to a recent study by *Tide*, trade magazine of the advertising field. Advertsing on television cost $5,630,577 from January-March 1953 compared with $4,910,623 the same period last year. National magazines received $2,744,880 for the first quarter of 1953, compared with $2,397,875 in 1952. Only radio declined from $4,632,785 in the first quarter 1952 to $3,633,185 this year.

Velsicol Adds to Staff

Stephen S. Easter, formerly with the Food & Agricultural Organization of the United Nations, has joined the entomological staff of Velsicol Corp., Chicago, according to a recent announcement by H. C. Whamond, vice-president. At the same time, the company announced the appointment of Lloyd L. Stitt as a member of its entomological staff. A graduate of the University of Minnesota, Mr. Easter has had widely varied experience with governmental organizations. Mr. Stitt's previous work was with USDA Bureau of Entomology and Plant Quarantine. He is a graduate of the University of Illinois, Champaign, and Iowa State College, Ames.

STEPHEN S. EASTER

LLOYD L. STITT

Hagelin Joins De Laire

Roy W. Hagelin has been appointed eastern representative of De Laire Inc., New York, according to a recent announcement by Louis Bezard, president. Prior to his new appointment, he was manager of the essential oils division of S. B. Penick & Co., New York, for four and a half years. Earlier Mr. Hagelin had been with Dodge & Olcott, Inc., New York, for 16 years. D. & O. formerly represented Fabriques De Laire, Paris.

Dow Names Bush, Jr.

Appointment of B. T. Bush, Jr., to handle aromatics sales for Dow Chemical Co., Midland, Mich., was announced recently by Donald Williams, vice-president and director of sales. In his new position, Mr. Bush is associated with the fine chemical sales section with headquarters in Midland.

At the same time, the company announced that John Hancock has been named to succed Mr. Bush as head of the Jersey City laboratory. Mr. Bush for the past three years has been head of the aromatics laboratory in Jersey City, N. J., and prior to that held the same position for several years with Bush Aromatics, Inc., until the firm was acquired by Dow in 1950. B. T. Bush, Sr., former head of Bush Aromatics and active in Dow's aromatics program since 1950, is continuing to serve in a consulting capacity on special phases of aromatics research and development.

New Canadian Association

The formation of an organization to foster, "in a manner consistent with the public interest," progress and development of industries in Canada which produce and distribute agricultural chemicals, was announced recently by the Canadian Agricultural Chemicals Assn. With headquarters in Montreal, newly formed CACA has a membership representing 14 firms in Canada.

Officers of the new body are: president—J. H. D. Ross, Canadian Industries Ltd., Montreal; first vice-president—A. H. Carter, Green Cross division, Sherwin-Williams Co. of Canada, Ltd., Montreal; second vice-president—W. R. Geddes, North American Cyanamid, Ltd., Toronto; secretary—M. F. Anderson, Naugatuck Chemicals division, Dominion Rubber Co., Montreal; treasurer—K. B. Owens, Monsanto of Canada Ltd., Montreal. Other directors are: J. D. Ruttan, Chipman Chemicals, Ltd., Winnipeg, Ont.; G. E. Willan, Niagara Brand Spray Co., Burlington, Ont.; R. M. Ferguson, Dow Chemical of Canada Ltd., Toronto; Dr. E. P. Aikman, Nichols Chemical Co., Montreal.

An important function of the association is the encouragement of research aimed at the improvement of production, distribution and consumption of agricultural chemicals.

"Pernet" Decision Final

An initial decision directing R. R. Siebert Co., Rochester, N. Y., to stop representing directly or by implication that "Pernet," a liquid silver polish, contains nothing injurious or harmful and will not harm the skin has become final, the Federal Trade Commission, Washington, D. C., announced recently. The initial decision also directed the company to disclose on the label of the polish that is should not be taken internally; that its fumes or vapors are harmful and should only be used with adequate ventilation; and that when contact with the polish is frequent or prolonged it may cause injury to the skin.

Hercules Ups Budd

Appointment of Montgomery R. Budd as director of advertising was announced recently by Hercules Powder Co., Wilmington, Del. He succeeds Theodore Marvin, who resigned recently to become president of Michigan Chemical Corp., St. Louis, Mich. Mr. Budd joined Hercules in 1929 as associate editor of *The Explosive Engineer*, a company publication, and was named assistant manager of the firm's advertising department in 1932. During World War II, he served as coordinator of employee relations for the company's explosives department. He returned to the advertising department as assistant director in 1945.

Mr. Marvin, who was associated with Hercules for 30 years, was named advertising manager of the company in 1931, and director of advertising in 1944. As president of Michigan Chemical, he is in charge of its expansion program to intensify the production of products connected with the bromides, magnesiums and chlorides.

Albert Verley & Company presents its

Pois de senteur extra

. . . another original contribution to
the reviving interest in floral odors

— TURN THE PAGE

Pois de senteur extra

by **ALBERT VERLEY & COMPANY**

. . . a companion odor to our new Mimosa Fleur Extra, offering you equally interesting possibilities for new, original effects.

Following the extended vogue of blended exotic compositions, it is natural to expect a revival of interest in floral types.

One neglected floral note is Sweet Pea. We believe that there is an important place for an outstanding Sweet Pea creation — not only as an interesting note in an extended blend of florals or in an exotic composition, but also as a perfume in its own right.

Pois de Senteur Extra has been created as a new Sweet Pea odor worthy of this opportunity. Like our new Mimosa Fleur Extra, it offers a means of utilizing an appealing note which has had very little exploitation. Investigate its application to your products.

Write for working samples and prices.

ALBERT VERLEY AND CO., INC.
466-472 W. Superior St., Chicago 10, Ill.
114-116 E. 25th St., New York 10, N. Y.

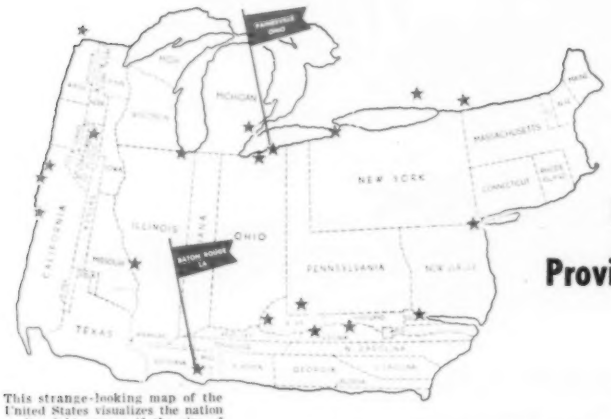
MEFFORD CHEMICAL CO.
1026 Santa Fe Ave., Los Angeles 21, Calif.

ALBERT VERLEY AND CO., INC.
222 Front St., East, Toronto, Ontario

Representatives in all principal cities throughout the world.

Synthetic Aromatic Products and Organic Isolates • Synthetic Flower Oils and Aromatic Bases • Bouquets and Finished Compositions

Announcing TWO MORE GENERAL CHEMICAL Sulfuric Acid Plants



This strange-looking map of the United States visualizes the nation as it might appear if the size of each state were determined by the value its manufacturing concerns add to the nation's industrial output. It is based upon the figures appearing in the 1949 and 1950 Annual Survey of Manufacturers prepared by the U. S. Department of Commerce, Bureau of the Census.

Now! America's Foremost Producer Provides Industry with 20 *Sources of Supply*

As the nation's needs for Sulfuric Acid spiral steadily upward, General Chemical again adds more plants to its network of sulfuric production facilities in this country and Canada*.

Now, large new acid facilities are going up at Baton Rouge, La., and Painesville, Ohio, to serve expanded demands in those areas. These plants are an important part of the company's continuous, long-range development program aimed at providing Industry with convenient, dependable sources of supply for this vital basic chemical.

That's why—when you deal with General Chemical—you will be served not just by one plant, but through 20. Each augments the facilities and output of the others. Together they form a coast-to-coast "pipeline" that can supply your needs equally well, whether you operate in one location or several . . . from the Great Lakes to the Gulf . . . or from Massachusetts to California.

Just phone or write the nearest General Chemical office for further information on how General's Sulfuric facilities can best be put to work for you.

Allied Chemical

GENERAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.
Offices in Principal Industrial Centers from Coast to Coast

*In Canada, The Nichols Chemical Company, Limited

build more soap sales with . . . ACTAMER*

nonirritating bacteriostat

Laboratory tests *prove* ACTAMER reduces resident skin bacteria over 97%.

Controlled hand-washing tests with Actamer-containing soaps show Actamer reduces by 97.5% the resident skin bacteria generally believed to contribute to body odors and minor skin infections.

In addition to its application in deodorant and complexion soaps, this new Monsanto product shows promise for use in such products as: diaper rinses, laundry detergents, shampoos, shaving creams, and surgical scrub soaps.

Actamer has been proved by rigorous skin studies to be neither a primary irritant nor sensitizer. It has exceptionally low toxicity for warm-blooded animals.

Economical. Write for a quotation. You'll be pleasantly surprised at the price.

For further information on Actamer, or a sample, write to MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 800 North Twelfth Blvd., St. Louis 1, Missouri.

*Trade-mark

MONSANTO
CHEMICALS – PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

OUTSTANDING FEATURES

OF ORONITE'S DRY AND LIQUID SURFACTANTS

Better D-40—flakes, granules or powder

High Detergency
Rapid Wetting
Thorough Emulsification
Excellent Dispersion
Fast Penetration
Stability in Solution

Compare new, better D-40 for efficiency and performance—you'll agree there just isn't a better all-around surfactant. Economical D-40 is almost odorless, has a whiter white color, is caking resistant, has high foam stability in presence of grease. Oronite's higher active D-60 is also better than ever.

New liquid Dispersant NI-W

Low Sudsing
Easy Rinsing—No Residue
Fast, Thorough Wetting
Exceptional Detergency
Neutrality and Stability
Solubility and Dispersibility
Compatibility ***with Anionic and Cationic Compounds***

New water-soluble Dispersant NI-W is a clear, light-colored nonionic surfactant. It is both heat and chemically stable—effective in hard or soft water. Very adaptable for manufacture of economical, high-quality formulations. Its new companion product, Dispersant NI-O, is an outstanding emulsifier for water-in-oil emulsions.

Contact nearest Oronite office for product data and samples.

The world's largest producer of synthetic detergent raw materials

ORONITE CHEMICAL COMPANY
THE NAME TO WATCH IN CHEMICALS
2616

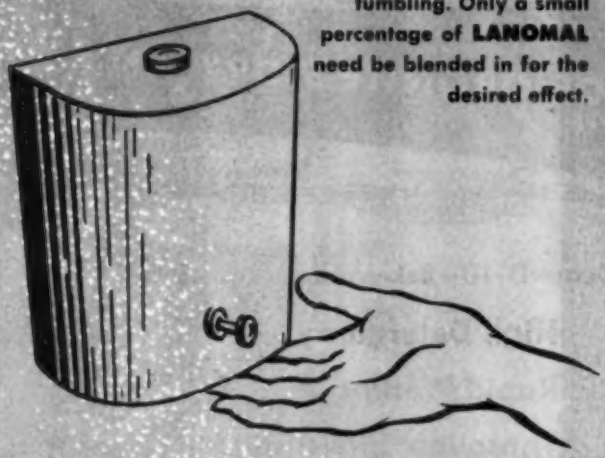
ORONITE CHEMICAL COMPANY
38 SANSOME STREET, SAN FRANCISCO 4, CALIF.
30 ROCKEFELLER PLAZA, NEW YORK 20, N.Y.
STANDARD OIL BLDG., LOS ANGELES 15, CALIF.
600 S. MICHIGAN AVENUE, CHICAGO 5, ILL.
MERCANTILE SECURITIES BLDG., DALLAS 1, TEXAS

MALMSTROM NINCO WOOL FAT & LANOLIN

Add LANOLIN *to* POWDERED SOAPS *with* FREE-FLOWING LANOMAL®

All the advantages of lanolin can now be added to your powdered products with newly perfected, *free-flowing, micro-pulverized* LANOMAL.

Developed through a special process and successfully tested over the past two years, LANOMAL can now be evenly and easily dispersed through your powdered soap by simple tumbling. Only a small percentage of LANOMAL need be blended in for the desired effect.



LANOMAL is a saponified, almost white lanolin blended with a filler, and is of uniform screen size, passed through 20 mesh. Used in proper proportions, LANOMAL will meet present government specifications for lanolin-class detergents.

LANOMAL is stable and can be shipped under any conditions and stored for any reasonable length of time.

LANOMAL is ideal for your powdered soaps; *send for a sample today and prove it.*

TYPICAL ANALYSIS (WHEN PACKED)

LANOMAL SOAP #1 (POWDERED)		LANOMAL SOAP #2 (POWDERED)	
Lanomal Soap #1 is a prepared free flowing powdered product manufactured by blending 25% of Bentonite with 75% of "Lanolin Soap", with the following typical analysis:		Moisture	1%
Moisture	2.5%	Unsaponifiables (Lanolin Alcohols)	5%
Unsap. (Lanolin Alcohols)	34.0%	Sodium Soap	94%
Sodium Soap	63.5%	Combined Sodium Oxide	11%
Combined Sodium Oxide	7.8%	Saponified Lanolin Fatty Acids	83%
Saponified Lanolin Fatty Acids	55.7%	Free Alkali	None
Free Alkali	None	Ph. of 5% aqueous solution	9.5–10.0
Ph. of 5% aqueous solution	9.5–10.0		

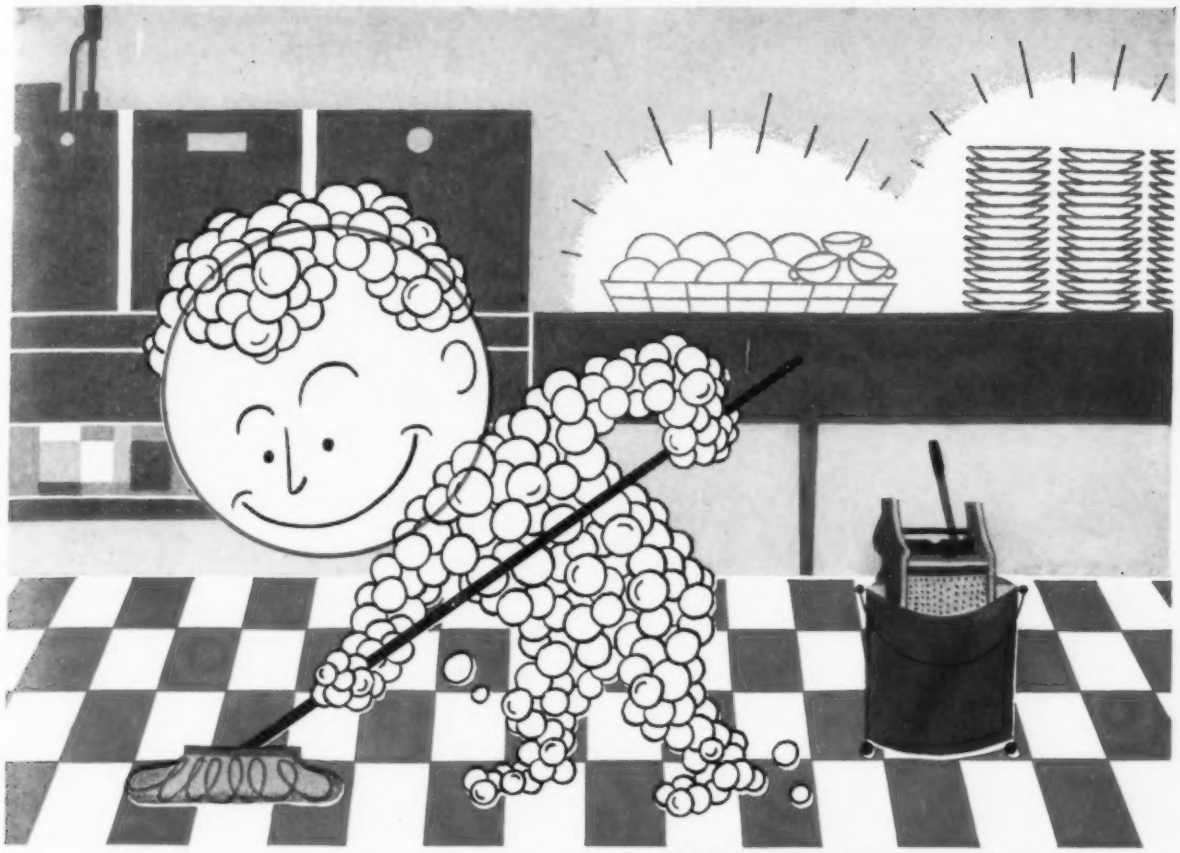
Packing: 300# bbls. or fibre containers.

N. I. MALMSTROM & CO.

America's Largest Processor of Wool Fat and Lanolin

147 Lombardy St., Brooklyn 22, N. Y.

612 N. Michigan Ave., Chicago 11, Ill.



The ULTRAWETS *wet, penetrate, clean, emulsify*

Versatile cleaner makes light work of heavy jobs

THE ULTRAWETS

Name any tough institutional or factory cleaning job: floors, walls, paints, dishes, machinery. Many leading compounders today are finding the greatest efficiency and economy by using the ULTRAWETS in their formulations.

ULTRAWETS are superior quality alkyl aryl sulfonates that work under widely varying conditions—cold water, hot water, soft water, hard water. ULTRAWETS go into solution quickly. Leave no hard water precipitates. Emulsify grease. In all types of cleaning compounds, scouring powders, and sanitizers, ULTRAWETS speed soil removal, keep solids in uniform suspension, and make for easy rinsing.

Discover the multiple advantages of using ULTRAWETS in your packaged cleaning preparations. Available in flake and bead of varying densities and in liquid form. Complete technical assistance in your application problems. For complete information, send coupon below, or write.

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PETROLEUM
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Philadelphia, Providence, Charlotte, Chicago
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In Canada: Naugatuck Chemicals Division of Dominion Rubber Company, Ltd.

THE ATLANTIC REFINING COMPANY
DEPT. E-79, CHEMICAL PRODUCTS SALES
260 SOUTH BROAD STREET, PHILADELPHIA 1, PA.

Please send me information on the ULTRAWETS for use in institutional cleaners.

Name _____

Firm _____

Street _____

City _____ State _____

It's the Sniff
THAT SELLS SOAP
• The lady can't test gentleness or lathering quality at the toilet-goods counter. It's scent that sells soap that little sniff before she buys. You must pack into that little sniff your whole story of quality, effectiveness, softness, value. Be sure the perfume you use tells the story you want told. The perfume chemists of van Ameringen-Haebler, Inc. will help you tell your story in perfume.
MANUFACTURERS AND CREATORS OF THE FINEST
van Ameringen · Haebler, inc.

NEW LIGHT ON AN OLD SUBJECT*

Bringing new light to bear on the varied uses of

its products is part of Niagara's service to industry.

NIALK® Caustic Potash

This product is being used by many soap makers as an aid in the development of more efficient and economical processing techniques since its traditional quality and purity are particularly helpful in assuring the production of top quality soaps.

Quality plus cooperation keeps NIALK products at the forefront in research and product improvement.

NIAGARA ALKALI COMPANY

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*NIALK LIQUID CHLORINE NIALK CAUSTIC POTASH

NIALK CARBONATE OF POTASH NIALK PARADICHLOROBENZENE

NIALK CAUSTIC SODA NIALK TRICHLORethylene

NIAGATHAL® (TETRACHLORO PHTHALIC ANHYDRIDE)

Deep Tone Cleaner softens even the hardest water making it naturally soft. This product cleans your floors and leaves them soft, pliable, bright, shiny as well as protected from dirt and grime. Deep Tone Cleaner is easy and economical to use. A few ounces clean any surface without harm.

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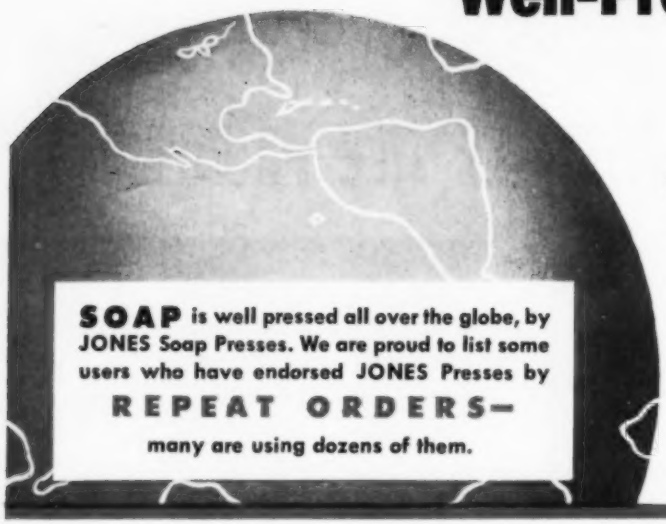

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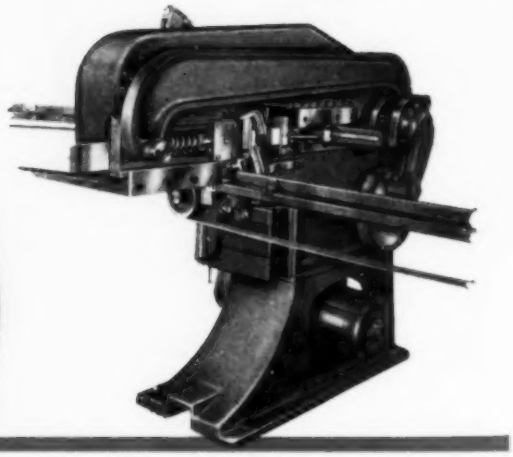

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. . . in brief

as the editor sees it . . .

SUDS . . . Wide-scale newspaper advertising of the non-sudsing detergent, "All," has focused attention recently on the role of suds in the sale of household soaps, detergents and cleansers. That "All" is bucking the strong tide of tradition and years of previous soap and detergent advertising is apparent. Also, as far as we know, this is the first advertising which emphasizes the absence of suds and which aims to debunk suds, especially in automatic clothes washers.

Since Hector was a pup, soap and detergent advertising has banged away at the theme of rich, copious suds. The housewife has been educated to expect suds, to associate suds with the cleansing operation. Products which gave sparse or no suds mostly fell by the wayside. Copious and excess suds were glorified, and in some cases continue to be, even though they are obviously a pain in the neck in the average household clothes or dish washing equipment.

The demand for suds is deeply ingrained. A lot of advertising and education will be required to change this demand. With the steady expansion in the use of automatic washing equipment, and the recommendations of equipment manufacturers, progress will continue to be made. But the idea will not be sold overnight.

●

CRYING TOWELS . . . The crying towel is not new in the soap industry. Even during the peak war years when buyers were clamoring for soaps and detergents, some soapers cried about how bad business was. Now, we are told, the tears are genuine and the going is as rough as it ever has been particularly for some of the smaller fellows.

Overproduction as a result of new plants put up in recent years is blamed by one soaper, who points out that per capita consumption of soap, including detergents, in the U. S. is about what it was in 1925. Even though there has been a normal increase in population growth, this is more than offset by new and improved soap and synthetic detergent production facilities.

Reduced inventories and hand to mouth buying policies of industrial consumers and store buyers sensing possible price cuts continue to have their effect. This speeds up turnover and lessens investment in buyers' inventories, but means bigger stocks and more warehouse space for soap and synthetic detergent producers.

Against this background, competition grows sharper, giveaways, gimmicks and coupons raise the cost of operations and tend to lower prices, although not as openly or as fully as would straight price cuts without all the fanfare. The average soaper recognizes the seasonal slowness, but looks forward to the final quarter of the year without too much optimism. The crying towels really are in use right now.

●

GLYCERINE . . . A cut of 10,000,000 pounds in the expansion program for the annual productive capacity of glycerine, as announced late last month by the Office of Defense Mobilization, contains some interesting implications. The program now calls for an annual over-all capacity of 268,000,000 pounds by Jan. 1, 1955, a decrease from the initial goal announced Apr. 28, 1952. The new goal represents an increase of 43,000,000 pounds over the 225,000,000 pounds available Jan. 1, 1951.

Interestingly, the new goal is based on a decline in natural glycerine production, which it is estimated will be about 140,000,000 pounds by 1955. The drop comes about, of course, as the result of

growing displacement of soap by synthetic detergents. The annual output of synthetic glycerine, now estimated at around 50,000,000 pounds, and fermentation glycerine (present production: nil) will reach 128,000,000 pounds by 1955, based on the goal set by ODM.

Only time will prove or disprove the wisdom of this projected glycerine output reduction. Surplus glycerine stocks have a habit of disappearing quickly upon occasion, if past experience is a criterion. And the long-range trend in glycerine use is still upward.

●

VINYL REPORT . . . Vinyl tile flooring does not need to be waxed, unless—and this is a big "unless"—users want better looking, less easily soiled, better protected and easier to maintain floors. This is the conclusion reached by a research study recently completed for the Waxes and Floor Finishes Division of C.S.M.A. The study covered in a report presented at the recent mid-year meeting of C.S.M.A. and published by us in the June issue, is now available in free reprint form. Copies of the reprint are being sent to several thousand floor wax users, maintenance people, architects and salesmen of waxes and other floor finishes throughout the country.

Because we are vitally concerned with what happens in and to the floor wax industry, we are glad to cooperate in this effort to answer a threat to continued and expanded floor wax use. If you want copies of this free reprint for your salesmen, customers or others, let us know.

●

INSECTICIDES . . . Sales of household and industrial insecticides, including moth specialties, increased fifteen percent in 1952 over 1951. This is significant inasmuch as scattered reports during 1952 were inclined to give the impression that the household insecticide business, excluding aerosols, was declining at a disturbing rate. Really to get the facts on sales and sales trends, the Chemical Specialties Manufacturers Association under the direction of Dr. George Fiero of Esso-Standard polled the industry for figures through a well-known firm of public accountants. The published results revealed a number of interesting and significant facts, some of which were rather unsuspected.

The basic sales trend in these insecticides showed a marked decline in DDT residual sprays in 1952 compared with 1951. At the same time a sharp increase in similar products based on chlordane was noted. In the case of space spray insecticides, marked increases were shown in the sale of products based on pyrethrum, allethrin and synergists. The overall market in 1952 was given as $33,000,000 at manufacturers' prices, a figure which could err on the conservative side.

To those who have felt that the household insecticide market was about to dry up and blow away, we suggest a perusal of the detailed figures in the CSMA report.

●

ACCUSED . . . The soap industry stands accused by the National Association of Hosiery Manufacturers, according to a newsletter which the latter recently sent out, of hurting the sale of women's hosiery. It seems that the soap people have sold ladies on the idea of removing their stockings and rushing them to the nearest tub or basin for immediate washing. This permits millions of women,—in fact encourages them,—to get along with only one or two pair of hose whereas the nylon stocking makers would prefer that no lady worthy of her cloth should have less than one or two dozen pair of hose on tap.

Say the hosiery fellows: "When a run occurs and there are no spares, it becomes a major catastrophe. . . ." Really, we don't feel that we would go quite that far. Let's compromise this thing and settle for a minor catastrophe. Believing that we fully appreciate the catastrophic significance which a run in a lady's stocking can assume upon occasion, we still feel that the soap industry also must live. And wasn't it the stocking lads themselves who first let these females in on the secret that nylon stockings, and pants, and shirts, and drawers, and what not, could be washed out now and worn again in jig time? We seem to remember that it was. So, why try at this late date to make the poor, struggling soapers take the rap?

as the reader sees it . . .

Gold Plated Door Knob

Editor:

Read your very excellent suggestion of page 188 of the June issue.

We are taking up the matter of the gold with the headquarters at Fort Knox, and if proper arrangements can be made, it is possible that our pet puppies will be able to be gilded along with their bath.

Dr. L. D. LeGear
Dr. L. D. LeGear Medicine Co.
St. Louis, Mo.

P.S.:—We are patiently waiting for the gold plated door knob.

* * *

The item referred to by Dr. LeGear appeared in our "Tale Ends" column in which we pointed out that the LeGear Medicine Co. had just come out with a dog shampoo containing, among other things, chlorophyll, lanolin and lindane. For this we indicated the product won our gold plated door knob award of the year. We also suggested the addition of a dash of colloidal gold just to balance the formula. As soon as the gold plated door knob can be found we will have it suitably engraved and shipped collect by pony express to Dr. LeGear. Ed.

———♦———

Thank You Note

Editor:

I would like to take this opportunity of expressing my appreciation for helping us to obtain materials for the Lions Club Crippled Children's Camp through the efforts of your magazine.

The response was gratifying, and I would like to thank all the suppliers who gave so generously.

A. J. Cuchia
Hygeia Chemical Co.
Galveston, Tex.

* * *

We are glad to hear the campaign was a success. We have asked Mr. Cuchia, who is also president of the Galveston Lions Club, to send us a list of the names of the firms contributing and we will publish it. Ed.

———♦———

Waxing Vinyl Reprints

Editor:

We believe the article ("Waxing Vinyl Flooring") starting on page 147 of your June issue of *Soap and Sanitary Chemicals* should be in the hands of all our members and their salesmen and accordingly ask your permission to reprint it with credit to both your paper and the C.S.M.A., as well as to Cyril S. Kimball and Foster D. Snell, Inc.

May we?

Leo J. Kelly, executive vice-pres.
National Sanitary Supply Assn.
Chicago

* * *

We are giving Mr. Kelly full permission to reprint the article, which we, too, feel should be in the hands of every manufacturer and salesmen of floor products. A large quantity of reprints are being made of the article by us and are available free on request. Reprints are also being sent to a large number of architects and others concerned with floor maintenance. Ed.

———♦———

Help!

Editor:

I hope you will help me obtain a reprint of an article which appeared in *Soap* several months ago.

Unfortunately I don't remember the author or title, but it dealt with the methods used by several of the large insurance companies in evaluating self-polishing waxes prior to their purchase.

As I remember, one of the largest companies had pretty much discarded all fancy specifications and complicated testing and was resorting to a plain, practical "on-the-Floor" method.

The need for this article right now should teach me to save my back issues of the magazine in the future.

H. H. Sherman, chemist
Boyle-Midway, Inc.
Los Angeles

* * *

The article referred to was a symposium discussion of "Field Testing of Floor Waxes for Slip Characteristics" and appeared in the October, 1952 issue of Soap. Ed.

———♦———

Silver Dip Patents

Editor:

Following the appearance of my article, "Silver Dips", in the May issue of Soap and Sanitary Chemicals I received numerous requests to clarify the patent situation on instant silver cleaners. I hope that the following information will prove informative to your readers.

There are two existing patents which reflect on present-day instant silver cleaners. One of these is U. S. Patent 2,628,199 issued Feb. 10, 1953. This patent covers the use of thiourea and an *acid having a pH value between 1 and 5*, in tarnish removal compositions. In view of the latter requirement, this patent only applies to

(*Turn to Page 75*)

During the month of July the art department of the Chicago Public Library is presenting a one-woman show by Annie Kabaker Robin, who turns her artistic talents to designing bars of soap into a great variety of designs. Soaps of Allen B. Wrisley Co., Armour and Co., Lucien Lelong, Inc., National Beauty Products, Roycemore Toiletries, Inc., Eisenberg Originals, Parfait, Inc., Lanchare, Inc., and House of Gordon, are included in the exhibit.

Accounting for More Sales a

PRETTY generally the accounting department of a company is considered "overhead." But at Economics Laboratory, the accounting department creates one of the firm's most powerful selling factors.

Fundamentally, Economics Laboratory is in the business of manufacturing products used in the dish-washing machines in restaurants. Competition is as keen in this field as it is in any other. Our company wanted to find that something extra that would put us ahead of our competitors. Our plan, in theory, was a simple one: concentrate on a special service for chain accounts, and have salesmen sufficiently trained to be able not only to sell our products but also inspect kitchens, make reports on their findings to the chain management, make suggestions and recommendations to the individual managers, and be in a position to suggest repairs. We would provide the management of the chain with a detailed report each month showing the condition of their dish-washing machines throughout the country. We would let them know just what had been done during the month, and we would make recommendations as to what should be done during the coming month. We would, in effect, be an outside inspection and service agency who, although not completely disinterested, would have the same objective as that of the management of the chain—a sanitary and efficient dish-washing operation.

In theory, the plan is simple. When it came down to actual practice, it turned out to be a lot more complex than we had anticipated.

The first problem was training a sales force of about 130 salesmen scattered throughout the country, so that they would be more than just soap peddlers. They had to be taught the operation, function, and repair of every type of automatic dish-washing equipment. We had to turn them, in effect, into kitchen engineers.

After that had been done, and a standard system set up for the training of new and additional personnel as it became necessary, a way had to be found of consolidating monthly reports made on all of his customers by each salesman into other reports issued to various chain managements. The final reports had to be in a workable state, because it was these reports that we were selling.

As we started to get into this problem it began to appear impossible. Even assuming that each salesman only made 100 calls during the month, it would mean a total of 13,000 individual reports which would have to be sorted down by chains. Then a master report for each chain would have to be drawn up, showing not only the detail of each of the individual calls, but a summary of the month's activities. The size of the accounting department needed to turn out such a report in time for it to have any value seemed beyond our capabilities.

Our operation now, however, is as simple as it is efficient. Each salesman is required to fill out a Soilax Service Report for each call he makes. At the end of every day these reports are sent to our main office, where they are segregated into three groups: chain accounts, other than chain, and salesmen in training. Those that are concerned with chain accounts are then coded with the chain code number and

John D. Simpson

Tabulating Supervisor, E. V. Robinson

Economics

"Soilax" Service Reports on restaurant dishwashing machines contain information that is machine processed by Economics Laboratory's accounting department and employed to build more detergent sales.

By John D. Simpson
Economics Laboratory, Inc., St. Paul, Minn.

the account number. They are sent to our tabulating machines division, where Remington Rand high-speed key punches translate all the information into punched-cards.

These cards are then put into a sorter and arranged according to chain number at the rate of 25,200 cards an hour. They are then filed away until the end of the month. When all the cards are in for the month they are intersorted with heading cards containing the name and address of each chain, and every branch within that chain, and are sent to the tabulator. There, at the rate of 100 lines "per minute"—each line consisting of up to 100 characters of any combination of either alphabetical or numerical characters—all the information contained in the cards is printed, in triplicate, to become our Remington Rand Report.

It is this report which goes to the chain management. Incidentally, in order to insure that each report is complete for the entire chain, we instruct the salesman to visit every location in his territory that is part of a chain at least once between the 15th and the end of each month.

The "other than chain" reports remain in the sales department, and from them a monthly recap is made. The information from the recap is then punched into our cards, which have been pre-punched, showing a progress report for the individual salesman for the year. After the current month's information is punched into the card, a tabulation is run off to show the salesman, the sales manager, and the supervisor just what progress the salesman is making.

Because the report shows a comparison of activities over several months, it is an extremely valuable tool in the hands of the sales manager. After being tabulated into progress reports, the cards are returned to the file.

The cards for the salesmen in training are handled much the same way, they are an excellent indication to management, and the individual salesman concerned, of the progress and state of proficiency of the trainee.

In addition to all this, our tabulating department makes it possible for management to get a complete and detailed analysis of sales. A duplicate copy of every invoice is coded to show type of business, state, division, territory, salesman, broker, warehouse, product and container, as well as commission and all the regular information normally appearing on an invoice. This is then sent to the tabulating machines division, and all that information is again transferred onto punched-cards, one card for each line of the invoice.

Periodically, during the month, these cards are automatically condensed into summary cards through the use of the automatic summary punch working simultaneously with

(*Turn to Page* 133)

General view of the tabulating department at Economics Laboratory.

Soap for Wool

Wool scouring as performed in large modern woolen mill.
Botany Mills, Inc., photo.

THE main purpose of scouring raw wool is to remove grease and impurities from the fibre. However, the operation involves more than this, for it is the first stage in conditioning wool to make it a valuable textile material with certain unique and desirable properties. The object of this article is to interpret the requirements of the wool scourer in terms of the detergent which he uses. Just as he should know something about soap, so that he may make an intelligent selection of what is best suited for his purpose, so also should those engaged in the production of industrial soaps know what is expected of their product and how it will be used.

There are two essential considerations to be kept in mind in any discussion of wool scouring. The first is, that any treatment proposed for the raw material must entail only the minimum of chemical action, for fear of impairing the physical properties on which the textile qualities of the fibre depend. The second is that dirt must be removed from the wool before the protective grease layer is attacked, because if fine particles of dirt penetrate into the crevices made by the overlapping scales, they are almost impossible to remove without injury to the fibre. The important problem in scouring is the effect of the scouring agents on the wool but, in the initial stage when one is dealing with raw wool, a secondary problem is the effect of the wool and its impurities on the detergent system. Raw wool behaves as a mixture of neutral and slightly acidic substances. Therefore, apart from the effects of an alkaline environment on the fibre itself and on the efficiency of the detergent it is necessary that there should be free alkalinity in the scouring system so as to neutralize the actual and potential acidity of the wool and its impurities.

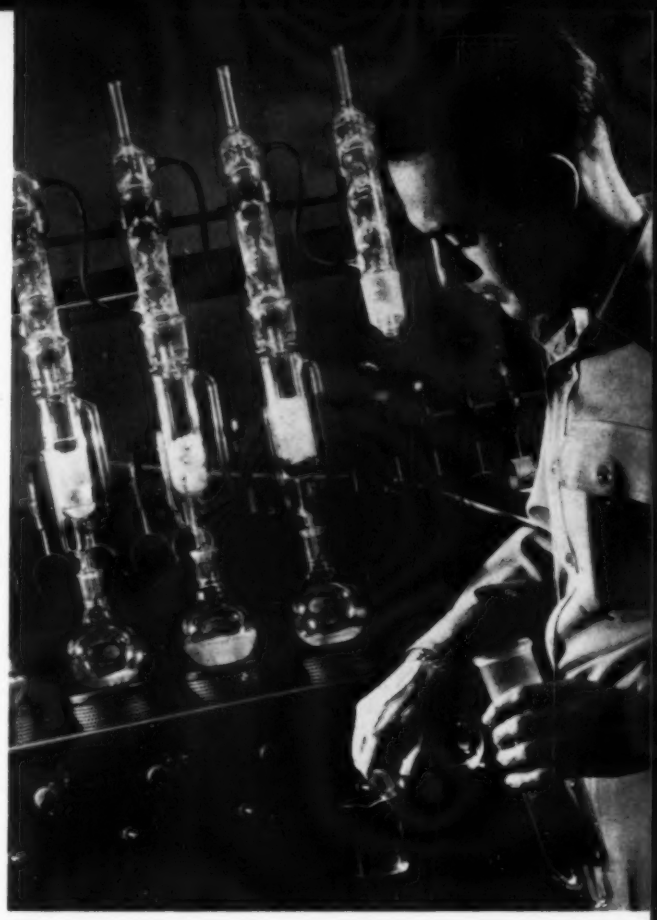
Wool Contaminants

WOOL, in the form in which it is scoured, contains a high percentage of contaminants which have to be removed from it before it can enter the sequence of operations—carding, backwashing, intergilling, combing and finishing—which ends in the production of a wool top, that is wool in the form that is ready for spinning. These contaminants are classified as follows:

1. Suint. This is a complex mixture of compounds present in the perspiration of the sheep and retained on the wool. Since it is derived from perspiration, it is soluble in water and can therefore be removed by soaking, without the help of detergents. Suint contains quite a high proportion of potassium salts, which have some chemical resemblance to potash soaps, and are able to emulsify grease and dirt; consequently, it helps in a small degree, in the scouring of the wool. Of course, there is wide variation in the amount and composition of suint on different wools but on a typical sample the alkalinity expressed as potassium carbonate from this source would amount to about 0.3 percent of the wool.
2. Wool grease. This is the waxy material excreted by the skin glands of the sheep, in a manner analogous to the way human hair is oiled, apparently with the multiple object of protecting, softening and waterproofing the wool. Its melting point is in the region of 40°C and this has a bearing on the scouring conditions because it follows that the temperature of the washbowls must be above this point if the grease is to be efficiently removed from the fibre. In round figures, 60 percent of wool grease is unsaponifiable matter, 30 percent is neutral, saponifiable oils and 10 percent is free fatty acids. From the point of view of detergency, this means that only 10 percent of the wool grease will be rendered water soluble by the scouring conditions and removal of the remaining 90 percent depends on

Scouring

By Dr. J. L. Boyle
Edinburgh, Scotland



Chemist making extraction tests on samples of scoured wool to determine its residual fat and oil content.

Wool Bureau, Inc., photo.

efficient emulsification. When one takes account of the fact that the grease content of raw wool is usually between 10 and 15 percent of its weight, it is clear that a great deal is expected of a wool scouring detergent. Fortunately, wool grease is more easily emulsified than any other fatty substance—in fact, its value as an article of commerce is mainly due to its high emulsifying properties—and so, relatively small concentrations of detergent suffice to emulsify it even under the restricted conditions of agitation and temperature made necessary by the nature of wool.

3. The third class of impurities present on wool is the miscellaneous forms of dirt, comprising plant residues, sand, soil and to a lesser extent, paint and tar. These may be partly fixed on the wool by the grease and so unable to be moved by mechanical means, such as dusting. They are released during the washing operation; the larger and heavier particles separate in the unagitated regions of the wash-bowls while the fine particles remain in suspension and are prevented from re-depositing on the wool by the efficiency of the detergent. Some kinds of plant residues are very difficult to remove by scouring and pass with the wool through the system. They are mechanically removed in the carding operation.

The proportion of non-wool constituents in a typical high-quality grade of raw wool is summarized in Table I.

Table I

	percent
Water	12.4
Wool grease	11.4
Water soluble material (Suint)	9.0
Alcohol soluble material (soaps)	1.8

In scouring raw wool it has been found that complete removal of the accompanying wool grease is undesirable because the subsequent operation of carding requires the fibres to possess a certain amount of lubricant. Otherwise, there is an increase in the proportion of long fibres which are broken into short pieces, with a corresponding decrease in the quality and yield of finished top. The process of spinning is also affected by the residual grease content of the wool, though the extent of this influence and the amount of grease which should be left on the wool is a subject on which the experts differ in their opinions.

The adverse effect on the fibre of almost complete removal of wool grease is sometimes exaggerated by attributing to this cause faults which are really due to the other factors that go with over-scouring. Thus, too vigorous agitation, too high temperatures in the wash-bowls and excessive usages of alkali in the scouring liquors may each lead to a low figure for the residual grease on the wool; they will also certainly damage the wool and give rise to poor results in its later treatment. These poor results may then be incorrectly blamed on the low grease content when they should be laid at the door of the faulty scouring methods adopted.

To decide the extent to which grease should be removed from raw wool is a case of balancing conflicting requirements and consequently there is not unanimous agreement on the exact point at which the optimum condition is reached. For fine wools, it is generally agreed that they have their best appearance and their properties most favorable to subsequent processing when the residual grease content has been brought down to between 0.5 percent and 1.0 percent; for coarser grades, the figure may be slightly higher. In the usual soap and alkali system of scouring, the conditions required to reduce the figure below 0.5 percent are likely to damage the wool but the nearer the wool can be brought to this point without injury, the better it is likely to be.

The usual scouring set consists of four bowls and, handling an average wool carrying about 14 percent of

wool grease, it may be expected that about 35 percent of the grease will be taken out in the first bowl and this figure will have risen to about 97 percent as the wool enters the third bowl. No further degreasing is done in the two last bowls where the final traces of dirt are emulsified and excess alkali and soap are washed from the wool. Some soap residues always remain on the wool but when these are high, it indicates that the solubility of the soap was too low.

Most tops are oiled, as part of their conditioning treatment, and on the finished product the total fatty matter is about 3.5 percent of which about 0.5 percent is residual wool grease.

The proportion of non-wool constituents remaining after scouring, in the wool referred to in Table I, is given in Table II.

Table II

	percent
Water	27.3
Wool grease	1.0
Water soluble material (Suint)	0.9
Alcohol soluble material (soaps)	1.3

No Standard Wash Method

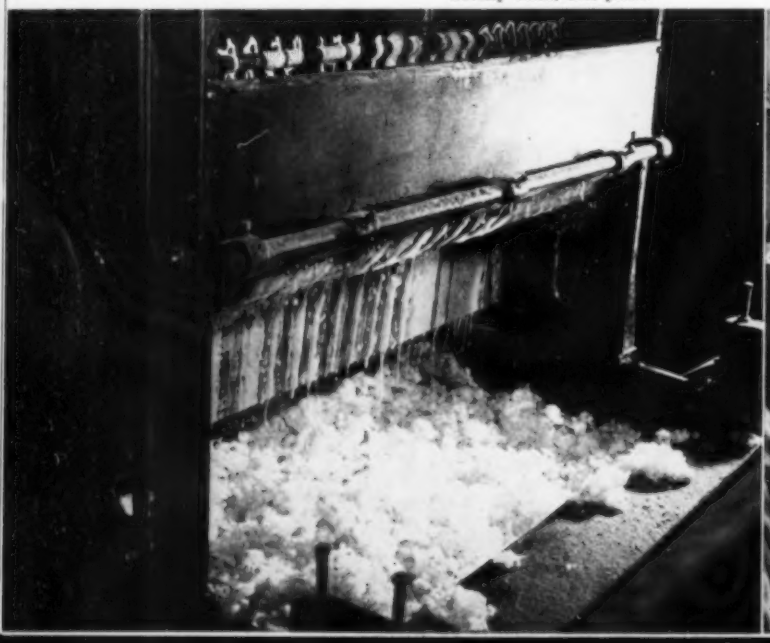
THERE is no standard method of washing raw wool. Each mill manager indulges his own preference. Occasionally all the soap and alkali is added at the beginning of a run but more commonly it is added continuously throughout the day. In some places, the wash water is changed at the end of the run; in others, there is a complete change every three hours; many mills follow a procedure between these two extremes and "let off" half the water after two or four hours' operation, with a full "let off" after four or eight hours. There are equally wide variations in the consumption of soap and alkali, even where closely similar qualities of wool are involved. For merino wool, the soap usage will vary from 1.8 to 2.8 pounds per 100 pounds of wool scoured and the alkali usage ranges from 2.0 to 4.2 pounds, in different mills. The ratio of alkali to soap used is frequently around 1.5 but it may be as low as 1.0 or as high as 2.0. The distribution of soap and alkali over the different bowls is more constant. It is customary for 90 to 100 percent of the alkali to be added to the first bowl and the remainder, if any, to the second. In those mills in which the soap consumption is very high, one usually finds about 40 percent of it is added to each of the first two bowls and about 10 percent to the last two; whereas the more usual custom is to add 5 to 10 percent of the soap to the first bowl, about 70 percent to the second, between 10 and 20 percent to the third and about five percent to the fourth.

These variations in the technique can be attributed, in part, to the natural variations in the quality of the wool being handled, to local factors such as the hardness of the water or the design of the wash-bowls, to different requirements or preferences on the part of the buyers of the wool tops. There is no objective specification with which the finished product has to comply, such as there is for chemicals, or oils or soap. There are, of course, certain limiting tests but the final assessment is based on how the wool performs in the manufacturing operations through which it must subsequently pass. In this, it is difficult to distinguish clearly between the effect of one factor, such as the technique of scouring, and another.

From the point of view of soap consumption, the harder the water used for scouring the more undesirable it is, but soap consumption is a lesser consideration to the wool scourer than the quality of his finished product. It appears that dirt removal is better with mildly hard water, that is, three or four degrees of hardness, than with artificially softened water. The calcium and magnesium soaps, that are produced in the mildly hard water, act as nuclei around which the difficultly dispersed particles of dirt collect and the aggregate is held in suspension by the soap solution. These insoluble soaps are flocculent, when they are first precipitated, and present a large volume around which the dirt collects. Other things being equal, therefore, the color of wool is better when it is washed in such water than in water which contains no hardness. Presumably, this effect also explains why soapless detergents alone do not give such a white scoured wool, since they do not cause precipitation of calcium and magnesium soaps.

In a few mills, it is the practice to concentrate the effluent from the wash-bowls in a multiple-effect evaporator and the condensate is used

Close-up photograph below shows emulsifying of wool.
Botany Mills, Inc. photo



Another view of the scouring of wool.
Wool Bureau, Inc. photo

again for scouring. It might be thought that such water would have zero hardness but in fact it contains from three to seven parts per hundred thousand of grease, present by entrainment, which makes it behave to soap like water of one to three degrees of hardness. By extraction with petroleum ether the grease is easily and completely removed, leaving a water which gives a very good scouring performance.

The best way to control the scouring operation, apart from subjective examination of frequent samples of the wool leaving the bowls, is by measurement of the alkalinity of the liquor, combined with visual inspection of the suds. Measurement of pH is preferable to titration, because the latter does not always give the effective alkalinity. In the first bowl, the pH should be 10.5 to 11.0; in the second, 10.0 to 10.5; in the third, 9.0 to 10.0; in the fourth 8.5 to 9.5. The upper limit is always set by the possibility of injury to the fibre and, consequently, varies according to the cleanliness of the wool, the danger being greatest when the grease has been removed. The pH in the last bowl is related to the amount of alkali carried out of the system by the wool and is, therefore, of considerable importance especially when the wool goes directly to a dryer. The lower the alkalinity at this point the better.

During scouring, the pH of the liquor tends to fall due to the neutralization of alkali by the impurities on the wool, by the consumption of soap in emulsifying dirt and to the direct absorption of alkali by the wool fibre. The last effect is the most significant because it is connected with the likelihood of damage to the product and it can vary widely according to the nature of the wool. It has been reported that the amount of alkali needed to bring a series of merino wools to pH 10.0 varied from five to 12 pounds of sodium carbonate per 1000 pounds of wool.

Soap Uptake Varies

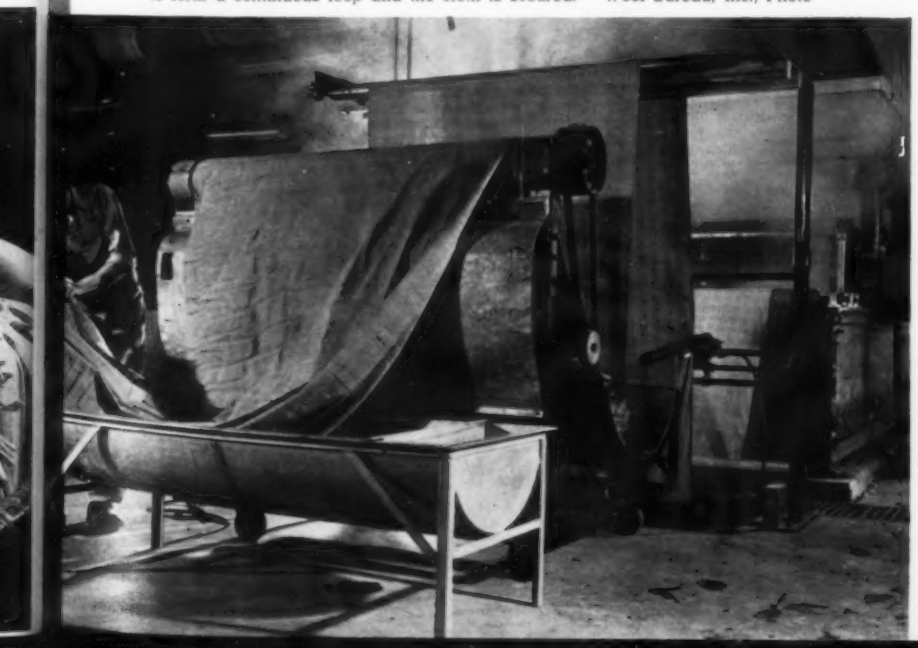
BECAUSE of the variability in the uptake of soap and alkali it is unsatisfactory to attempt scouring process control by adding standard quantities of these materials to the several bowls and then relying on visual examination of the wool to detect when more detergent is needed. Visual examination can only tell the supervisor that he is already in trouble; it does not enable him to maintain a constant level of detergency in the bowls, which is what is wanted. This can most nearly be attained by keeping a constant pH in each bowl and, for this reason, pH recorders together with visual examination give the best basis for controlling the additions of soap and alkali during the course of a run.

In considering the influence of soap in wool scouring, more attention, than is commonly given, is due to that aspect of their relationship known as preferential absorption. All soaps hydrolyze in water, to some extent, giving rise to a definite alkalinity the concentration of which depends on the nature of the soap. The wool fibre absorbs some of this alkalinity and to maintain the definite alkaline concentration, which its composition requires, the soap releases more alkali. Part of this is absorbed by the wool and so the cycle continues until a state of equilibrium is reached. This is the behavior called preferential absorption and it results in the liberation of free fatty acid in the scouring bath and its deposition on the wool itself. The soaps of the various fatty acids hydrolyze to different extents and since those of low titre hydrolyze least, such soaps should be chosen for wool scouring. A low titre confers other well-known advantages, namely, high solubility and rinsability, and for a wool scouring soap it is recommended that it should lie between 20 and 23 and certainly not above 26.

The harmful effects of an excessive degree of preferential absorption are not confined to the fatty acid component of the reaction. The injurious effects of high absorption of alkali by the fibre are shown by decreased softness, elasticity and strength. As would be expected, the concentration of detergents in the wash-bowls has a strong influence on this aspect of wool quality. Thus a high quality Cape wool, scoured in a mill using 2.8 pounds of soap and 3.8 pounds of soda ash per 100 pounds of scoured wool, contained absorbed alkali equivalent to 0.32 percent as NaOH, while the same wool, scoured with the same soap in another mill using 2.0 pounds of soap and 2.8 pounds of soda ash, contained only 0.22 percent alkali expressed as NaOH. Though this example illustrates a 50 percent increase in the alkali content of the fibre, both samples appeared to be well scoured and of good quality, so there appears to be quite a wide margin of safety in this respect.

The basis for the subsequent behavior of wool as it passes through the many operations that lead up to the finished garment or cloth, is laid in the scouring treatment and, as a building is no better than its foundation, so the mill manager should take every precaution to see that his raw wool is carefully and efficiently scoured. This involves a critical attitude in his choice of a detergent and an informed technique in its use.

Washing the cloth is shown below. Again lengths of fabric are sewn together to form a continuous loop and the cloth is scoured. Wool Bureau, Inc., Photo



Outdoor Posters Sell Household

POSTER advertising is helping to build up sales of the Royox household cleaner, a product of the Royce Chemical Co. of Carlton Hill, Bergen County, N. J.

Primary purpose of this medium is to concentrate the firm's message in areas where its product is known, not so much to convert new users, and hence is considered as "hold-the-line" advertising.

That is why location of the panels has been fixed at point-of-purchase sites. The billboards can be found on building walls and adjacent to retail outlets such as grocery stores, supermarkets, or in convenient spots close to these places Thus they serve as a psychological reminder to persons entering the stores to remember to buy that particular brand.

Location of the posters is concentrated in five North Jersey counties where sales of the cleaner are heaviest. Although the product is also sold in other parts of the metropolitan New York area and in eastern Pennsylvania, this advertising is planned to reach only those spots where business is good so that it can more effectively serve its purpose as a reminder stimulant.

"In evaluating our experience with outdoor advertising, it is difficult to attribute a definite percentage of business obtained from this medium alone," points out Howard C. Royce, vice-president. "That is because it is impossible to segregate the returns from all our media and we use several including *Family Circle, Woman's Day*, and heavy space insertions every spring and fall in 40 newspapers. But the outlets to whom we sell wholesale such as stores and supermarkets report that all of this effort has been helpful in putting our brand over."

Lithographed Posters

THE company uses an average of 44 outdoor panels, although this has been expanded to as many as 90 when suitable spots can be obtained. They are of a uniform size six feet high and 12 feet long. In addition, two of the larger 24-feet billboards are rented as well as a painted building wall sign at a downtown spot in Rutherford near the plant.

The posters are lithographed on paper and although this is more expensive than silk-screen, it is felt that the better results obtained more than offset the increased costs.

They are printed in several colors, and the copy is changed regularly every month. The theme rotates every month also so that the public can become more familiar with what the product can do for it. The same message, however, is displayed simultaneously so that by hitting the passer-by with the same story at the same time the all-important effect of impact is achieved.

The copy is largelv institutional with a few brief catchy words so that the hurrying reader will be quickly impressed with the large package identification and associate the product with it. This is essential since the bottled cleaner is displayed in many self-service stores and is, therefore, picked up by the customer who is familiar with its wrappings, color, and other distinctly visible markings.

Cleanser

By Albert S. Keshen

At the end of the calendar year the copy is based primarily on seasonal themes such as extending Christmas and New Year's greetings with an illustration of Santa Claus or a holly wreath.

Phrases used, such as, "Refresh Your Home," Deodorizes as it Cleans," "Leaves a Fragrance of Pine," "Women Swear By," etc., are designed to appeal primarily to women. Recent panels have also used a suggestive line such as "floors—woodwork—enamel—porcelain—tile" so that the consumer can immediately become acquainted with the many uses of the product instead of buying it only for one room in the house, such as the bathroom.

The theme is developed by the advertising agency after color sketches are approved by the company's executives. The advertising company undertakes all maintenance expenses including rent, keeping up repairs or paying light bills wherever illumination is needed.

The advertising company is paid $15 per month per poster on a yearly contract with an additional expense entailed of $3 to $5 for paper for each poster.

Posters' Value

IN evaluating its experience with poster advertising, Royce has come to the following conclusions regarding its advantages for the cleaner product wholesaler or manufacturer: First, it has a high remembrance value and leaves a continual impression of more than passing worth. Surveys show that between 85 and 87 percent of the population are outdoors every day going to and from work or recreation. In this instance, women customers passing by or preparing to enter the store cannot help but note these large signs and are influenced by them at a strategic time—when they are about to buy.

Secondly, it affords an opportunity to lend color to advertising, dramatize and play it up to greater effects of impact than usually afforded by other media. For one thing posters are large and ample, giving plenty of room for a capable designer to work out his copy—and there are several colors included.

Third, flexibility. A wholesaler doesn't have to waste a lot of his effort in reaching an area or class in whom he is not especially interested. He can select his choice spots and concentrate on them with a singleness of purpose and not diffusion of audience.

Finally, there is economy in all-around results. Royce states that whereas in other types of promotion they usually have only one chance at the target, the billboard message is static and repeated.

Although Royox is sold in retail stores for general home cleaning, it is also available for industrial use. Packaged in five, 10 and 15 gallon kegs and barrels, it is used for general cleaning purposes.

This product, however, is only one of many turned out at the modern plant which for a quarter-century has been devoted to the betterment of standards governing a group of specialized products and of services relating to their use.

Primarily manufacturers of industrial chemicals, Royce also produces printing gums, hydro-sulphites, water repellents, desizing agents, wetting agents, finishing compounds, dispersing agents, and zinc oxide.

Organized by Albert J. Royce, Sr., the company has flourished since 1929 under the uninterrupted supervisory control of its founder and his executive associates.

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Copra Exports Dip

Phillippine copra exports during April 1953 totaled 41,256 long tons, a decrease of about eight per cent from the 44,629 tons shipped in the preceding month and from the 45,049 tons exported during April 1952, *Foreign Commerce Weekly* reported recently.

Actamer in Liquid Soaps

An evaluation of its cutaneous antiseptic properties in various liquid soaps

By Richard R. Egan and Mary D. Reed*
Gerson-Stewart Corp., Cleveland

IN THE late 1930's Sindar Corp., New York, developed the compound 2,2′-methylene bis (3,5,6 trichlorophenol) or "G-11"** (hexachlorophene) (1). This compound retained its antimicrobial activity in the presence of soap and, therefore, a significant advance was made in the field of skin antisepsis. There is no question that "G-11" has remarkable skin degerming properties.

Until late in 1952 or early in 1953 no compound was commercially available which had effective skin degerming properties which even approached those characteristics of G-11. In January, 1953, Monsanto Chemical Co., St. Louis, announced the availability of 2,2′-thiobis—(4,6 dichlorophenol) or "Actamer"*** (bithionol). Monsanto claimed excellent skin degerming properties for this compound.

It was decided to evaluate thoroughly the cutaneous antiseptic properties of "Actamer" in our laboratory since such claims had previously been made for many compounds only to have it later shown that such claims were ill or poorly founded. (2)

It is, however, the opinion of the authors that the claims for "Actamer" made by Monsanto are completely justified and that the product has excellent skin degerming qualities.

Since Gerson-Stewart Corp. manufactures liquid soaps on a large scale it was decided to evaluate bithionol ("Actamer") in a variety of liquid soaps. The soaps used are as follows:

Soap	pH of Soap	% Actamer
40% Liquid coconut oil soap	10.0	2.0
40% Liquid coconut oil soap	9.0	2.0
30% Liquid soap (50% corn F.A. and 50% coconut oil)	10.0	2.0
30% Liquid soap (40% oleic acid and 60% coconut oil)	9.0	2.0
35% Liquid vegetable oil soap (Iodine value=90)	10.0	2.0
15% Liquid pure corn fatty acid soap	10.0	0.5

The 15 percent corn fatty acid soap was used without dilution but all the other soaps were cut to 10 percent solids so that in all tests there was 0.5 to 0.67 percent "Actamer" present in the washing solution.

Before proceeding with a disclosure of the test results it is well to describe in some detail the test procedure used.

The Cade modification of the Price basin technique was used (3).

1) Each subject was isolated for from two weeks to one month from the use of any medicated preparation which might come into contact with the hands and deposit an antiseptic material.

2) Only those subjects were used who were known to have substantial bacteria counts. Three subjects were used for each series.

3) The tests were run for 12 days starting on Monday morning of the first week and ending on Friday morning of the second week.

4) The subjects washed to the wrist bone successively in five sterile enamel basins each containing 2000 cc of sterile distilled water using five cc of non-medicated soap for each basin. The soap solution was measured by a pipet. The subject washed for one minute and fifteen seconds in each basin and then rinsed for fifteen seconds in each basin. The temperature of each wash solution was approximately 25°C±2°.

5) Duplicate one cc samples were pipeted from the 1st, 4th and 5th basins immediately after thorough agitation and plated onto nutrient agar.

6) The plates were incubated at 37.5°C for 48 hours and then bacteria counts made by means of a Quebec Colony Counter.

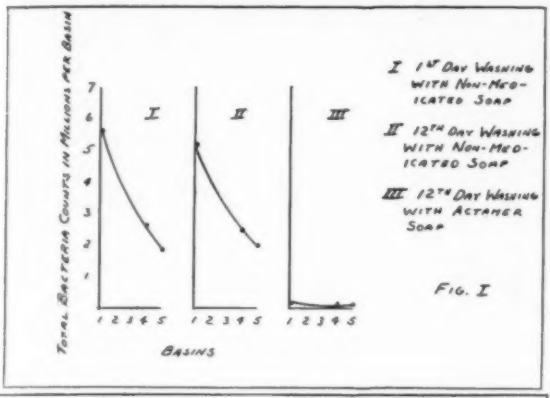
7) After the control test was taken the subjects began washing with the medicated soap. Each subject washed with the medicated soap for one minute three times a day at approximately three hour intervals.

8) At the end of Thursday of the first week each subject had washed his hands twelve times with the medicated soap.

9) On Friday morning of the first week prior to washing with the medicated soap, the subjects again took a basin test as described above. Therefore, 15 to 16 hours had elapsed between the time the subject had last washed his hands with the medicated soap and the time he took the basin test. The counts were again determined.

10) At the end of Thursday of the second week the subject had washed his hands 27 times with the medicated soap (no washings were done on Saturday or Sunday). On Friday morning of the second week without further washing with the medicated soap the subject again took a

*Paper presented at 39th mid-year meeting, C.S.M.A., Chicago, May 18, 1953.
**Registered trade mark, Sindar Corp., New York
***Trade mark of Monsanto Chemical Co.

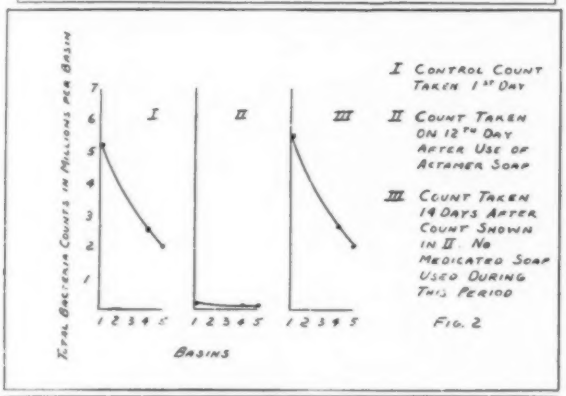


I 1ST DAY WASHING WITH NON-MEDICATED SOAP

II 12TH DAY WASHING WITH NON-MEDICATED SOAP

III 12TH DAY WASHING WITH ACTAMER SOAP

FIG. I

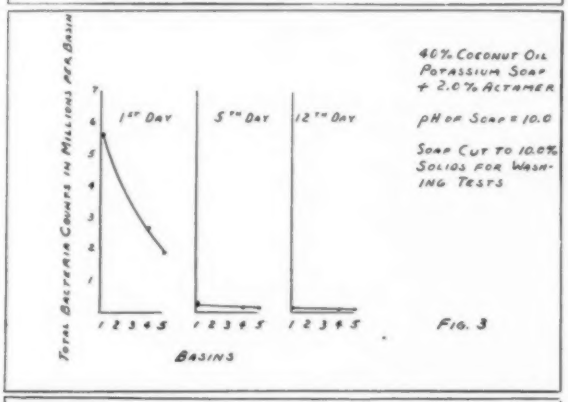


I CONTROL COUNT TAKEN 1ST DAY

II COUNT TAKEN ON 12TH DAY AFTER USE OF ACTAMER SOAP

III COUNT TAKEN 14 DAYS AFTER COUNT SHOWN IN II. NO MEDICATED SOAP USED DURING THIS PERIOD

FIG. 2

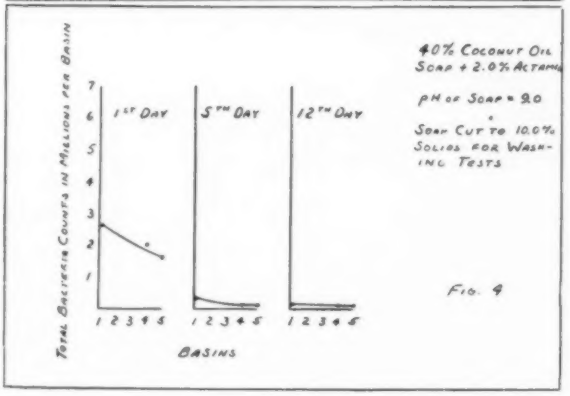


40% COCONUT OIL POTASSIUM SOAP + 2.0% ACTAMER

pH OF SOAP = 10.0

SOAP CUT TO 10.0% SOLIDS FOR WASHING TESTS

FIG. 3

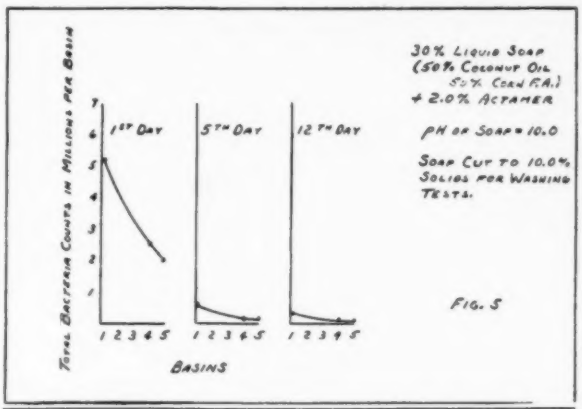


40% COCONUT OIL SOAP + 2.0% ACTAMER

pH OF SOAP = 9.0

SOAP CUT TO 10.0% SOLIDS FOR WASHING TESTS

FIG. 4

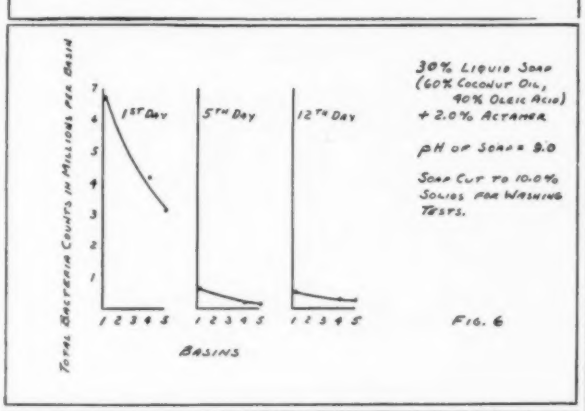


30% LIQUID SOAP (50% COCONUT OIL 50% CORN F.A.) + 2.0% ACTAMER

pH OF SOAP = 10.0

SOAP CUT TO 10.0% SOLIDS FOR WASHING TESTS.

FIG. 5

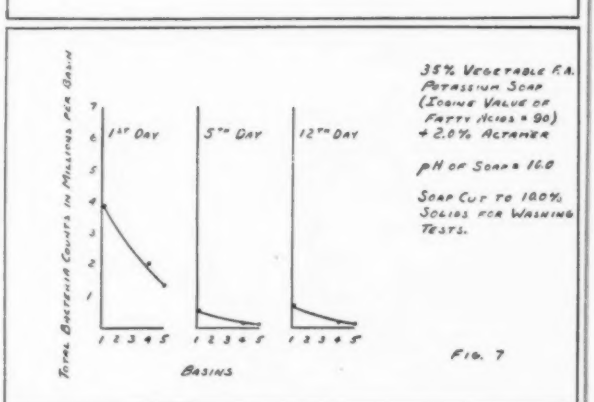


30% LIQUID SOAP (60% COCONUT OIL, 40% OLEIC ACID) + 2.0% ACTAMER

pH OF SOAP = 9.0

SOAP CUT TO 10.0% SOLIDS FOR WASHING TESTS.

FIG. 6

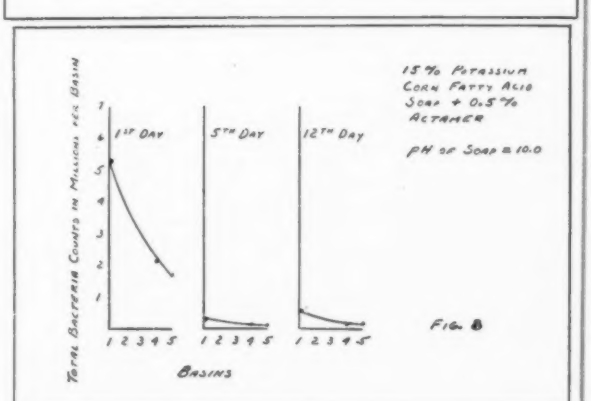


35% VEGETABLE F.A. POTASSIUM SOAP (IODINE VALUE OF FATTY ACIDS = 90) + 2.0% ACTAMER

pH OF SOAP = 10.0

SOAP CUT TO 10.0% SOLIDS FOR WASHING TESTS.

FIG. 7



15% POTASSIUM CORN FATTY ACID SOAP + 0.5% ACTAMER

pH OF SOAP = 10.0

FIG. 8

basin test as previously described and the counts determined.

Figure 1 demonstrates the necessity of washing with a medicated soap, for it can be seen that after 12 days of washing with a non-medicated soap by the procedure described no appreciable reduction in bacteria count is effected. However, a tremendous reduction occurs after washing for 12 days with an "Actamer" soap.

It is shown by Figure 2 that after a two weeks abstinence period from washing with an "Actamer" soap the residual effect of the germicide has disappeared and the subjects' counts are back to normal.

With these two facts established, observation of the experimental data is now in order.

In Figure 3 it can be seen that in washing with a 10 percent coconut oil soap containing 0.5 percent "Actamer" and having a pH of 10.0 a tremendous count reduction is effected after only twelve washings (four days) and that an even greater reduction (95 percent) is obtained by the twelfth day.

In order to determine whether or not pH affects the activity of "Actamer," the series shown in Figure 4 was run duplicating the set shown in Figure 3 except that the pH of the soap was held to 9.0. As seen in the figure essentially the same results were obtained as in the previous set. Again a 95 percent reduction was obtained.

For the next series of tests shown in Figure 5 a liquid soap was chosen, in which the iodine value of the oils was 60 and in which the pH was 10.0. The percentage of "Actamer" in the test solution was 0.67. Again it should be noted that after twelve washings the bacteria count reduction was very great (88 percent) and that by the end of the test the reduction in count was slightly over 90 percent. This reduction in count is slightly less than that obtained in pure coconut oil soap but whether the difference means much or not is somewhat questionable.

The work was repeated using a liquid soap which was composed of 60 percent coconut oil and 40 percent oleic acid soaps and which had a pH of 9.0. Figure 6 shows again that a bacteria count reduction of approximately 90 percent was attained after 12 washings and only a slightly greater reduction was attained after 27 washings. It appears from these results that it makes no difference whether the pH of the soap is 9.0 or 10.0 as long as the bithionol has been added to the soap properly. Therefore, the two subsequent soaps in which "Actamer" was used had a pH of 10.0 and none was run at a pH of 9.0.

In the next series, Figure 7, a vegetable oil soap in which the oils had an iodine value of 90 was used. At the end of the first week an average count reduction of 90 percent was attained, but at the end of the second week an average count reduction of only 82 percent was realized. It should also be noted that the counts were slightly higher at the end of the second week than those taken on the fifth day. No good explanation of this phenomenon is offered, except to say that the soap did not have good lathering properties nor was its detergency outstanding. In truth, the soap was used because its oils had an iodine value of 90 and it was desired to study the behavior of "Actamer" in this iodine value range.

The last soap run in this program was a 15.0 percent corn f.a. soap containing 0.5 percent "Actamer." The iodine value of the fatty acids was 110. Figure 8 shows the results of this test. Again by the fifth day the bacteria count reduction was better than 90 percent. The counts taken at the end of the second week were slightly higher than those taken on the fifth day, but still a 90 percent reduction was attained.

Results and Discussion:

1) From these data it appears that without question "Actamer" is a very effective bacteriostatic agent when used in soaps.
2) It appears that the bacteria count reduction occurs faster when "Actamer" is used than when "G-11" is used. In all cases the "Actamer" soap gave bacteria count reductions of 90 percent or more by the fifth day, whereas Gump (2) has shown that even by the sixth day with the use of a "G-11" soap such a percentage count reduction has not been approached.
3) The variation of pH from 9.0 to 10.0 in the liquid soap does not affect the germicidal activity of bithionol.
4) More than forty people of various complexions have run basin tests using "Actamer" soaps with no cases of skin irritation resulting. Other compounds supposedly designed for the same purpose have caused severe cases of skin irritation.

(*Turn to Page* 135)

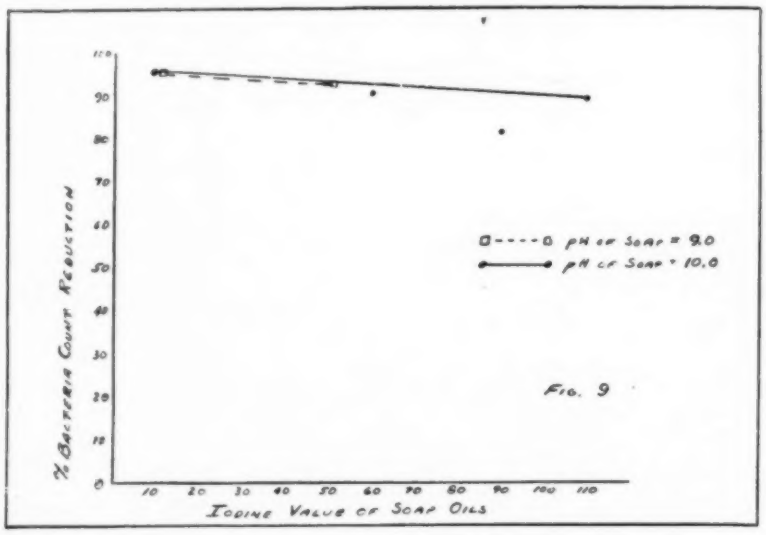


FIG. 9

New Cleaners at Restaurant Show

DETERGENTS for safe use on aluminum restaurant dishes and equipment topped a varied list of new sanitation products displayed at the National Restaurant Association's 34th annual convention and exposition, held at the Navy Pier, in Chicago, recently. Operators of food serving establishments were reported delighted with the new cleaners which dispose of the corrosion problem on their bright pots, pans and trays and manufacturers were warmly praised for solving this long standing problem.

Klenzade Products, Inc., Beloit, Wis., has had a new "Klenzade" aluminum cleaner on the market for about six months, Thomas McLaughlin, manager, institutional div., said. Most of the selling effort at the booth was devoted to demonstrations of the compound's non-corrosive effect on aluminum ware. Attention was also drawn to other products, including "Kleer-Mor," a general purpose synthetic detergent now improved with a chelating agent, and to another restaurant specialty, "Ster-Kleen," for glass dishwashing.

Wyandotte Chemicals Corp., Wyandotte, Mich., made their first showing of "Anti-Bac", a sterilizer, which A. A. Roth, technical service engineer, said can be used on aluminum ware without corrosive effects. It is packaged in a four pound glass jar with attractive fused-on silkscreen label. "Anti-Bac" is recommended for use at the rate of one ounce to six gallons of water. Wyandotte also featured their newly improved detergent, "Salute," for machine dishwashing; "Neo-Suds" which makes suds in sea water and other standard products for the restaurant market. Assisting Mr. Roth were Fred M. King, manager of the food and beverage division, and Howard Hastedt, Chicago area sales manager.

Diversey Corp., Chicago, introduced four new products, all of which were placed on the market in April. Included were "Divolite," a machine dishwashing compound; "Dicopan," for cleaning pots and pans; "Divodip" for silverware and "Diversol CX", a non-corrosive water softening cleaner with bactericidal, disinfectant and deodorant properties. This compound is now available in a distinctive pink color which, it was explained, "ends all worries of mixups between disinfectants and other compounds that can cause spoilage and waste." S. G. Smith, manager, maintenance products department, was in charge.

Economics Laboratory, St. Paul, Minn., showed their full line of restaurant sanitation chemicals, but concentrated sales efforts on two new mechanical devices for solution control in machine dishwashers. One was the "Solu-matic" electric (not electronic) detergent dispenser which is being offered as a low-cost device adapted to any type of dishwasher. The other, now in limited production, is known as the "Soilax rinse injector" which automatically injects a "Soilax" compound with drying agent into the rinse water of the mechanical washer. The device, it is claimed, speeds up drying of dishes, glasses, trays, silverware, by making toweling unnecessary to remove effects of water spotting. Demonstrations were supervised by Fred T. Lanners, Jr., research and development engineer. Full scale production will be started during the summer, he said.

E. F. Drew & Co., New York, featured a new cleaner, "Gripon," described as a highly concentrated liquid cleanser for all types of floors, including rubber tile. It is available in five gallon pails and in 30 or 55 gallon drums.

Another recently introduced product shown was "Blackout", an alkaline cleaner for removing carbon from deep fryers, etc., made of any metal except aluminum. Still a third product was "Napsol" a highly concentrated neutral powder for manual dishwashing, which will suds freely even in cold or salt water. Demonstrations were also made of an improved detergent dispenser for dishwashing machines. Paul Hirsch, national sales manager and J. Vincent, national sales director, from New York, assisted Joseph Letsos, Chicago sales manager.

Du Bois Co., Cincinnati, had a new synthetic liquid cleaner, "Flow", for cleaning floors and other washable surfaces, where high alkaline content is not necessary. It is also an excellent silver rinse-dry compound, it was claimed. Other Du Bois products featured included "K-O-L" for machine dishwashing and "D-Lite" for manual dishwashing. J. M. Welch, Chicago sales promotion manager, institutional division, directed the large staff at the booth and also on hand from Cincinnati were T. V. DuBois, president, and Louis Lerner, vice president, sales.

Davies-Young Co., Dayton, O., demonstrated their "Buckeye Dyjet" faucet dispenser which fits all standard sink faucets and produces rich foaming suds at the flip of a lever. Lou Pollock, sales promotion manager, explained that the attachment is offered free to users of the company's "Dysh" liquid detergent.

Maid-Easy Cleansing Products, Mount Vernon, N. Y., featured "M-E" cleanser, an odorless dip for removing stains and discolorations from plastic tableware and for cleansing coffee making equipment. Detergents for machine and hand dish washing were also shown.

Foley-Irish Corp., Brooklyn, N. Y., had a detergent for use in connection with their silver washer-drier machine which a spokesman said, is custom made under their private label.

Pittsburgh Chemical Laboratory, Inc., Pittsburgh, Pa., displayed a wide variety of sanitation chemicals for the restaurant trade, such as china dip, silver dip, germicides, disinfectants, floor cleaners, etc., George C. Schmidt, president, in charge.

Calgon, Inc., Pittsburgh, Pa., had a large display of their dishwashing detergents for fountains and hand and machine diswashing. C. P. Pavlik, sales manager, in charge.

Geerpress Wringers, Inc., Muskegon, Mich., demonstrated their improved line of mopping equipment, with Mrs. Kathryn Bard assisting her husband, Herbert Bard, in the presentation.

Kent Co., Rome, N. Y., showed their complete line of floor machines for restaurant use, including a new model with 17-inch brush and weighing 100 pounds for scrubbing, polishing and steel wooling.

National Sanitation Foundation, Ann Arbor, Mich., called attention to the two sets of standards issued to date to guide public health officials, manufacturers and users of restaurant equipment. Standard No. 1, a 60-page booklet, issued in July, 1952, deals with "Soda Fountain and Luncheonette Equipment," and Standard No. 2, on "Food Service Equipment" a 42-page booklet, which appeared last October.

James A. King, assistant to the executive director of the Foundation, who had charge of the booth, announced that a third set of standards for spray type dish washing machines was to be released in June, while others are in preparation on cooking equipment, hot water heaters and moist food dispensers. Mr. King also explained to restaurant operators how the Foundation's "Seal of Approval" is made available to manufacturers of equipment built to conform to the organization's sanitation standards.

Distributed to visitors was a circular entitled "Detergents—Under Water Heroes," which graphically explains in non-technical terms, the nature and action of detergents for dishwashing. It was prepared, the sheet explains, "as a guide for choosing a good detergent and using it economcially."

Dow Opens Britton Labs.

Dow Chemical Co., Midland, Mich., recently announced the opening of its new Edgar C. Britton research laboratory, named in honor of its organic research laboratory director. The laboratory, with 42,000 square feet, has facilities for 100 workers, including a technical staff of 60. It also contains eight six-man research laboratories and two three-man laboratories. Dr. Britton has been a member of the Dow organization since 1920 and director of its organic research laboratory since 1932.

Trombley in New Post

Appointment of C. F. Trombley as product sales manager for the Texas division sales department was announced recently by Monsanto Chemical Co., St. Louis. Prior to his new appointment, he served as general branch manager of the San Francisco sales office for the company's western division since December 1949. He joined Monsanto in 1935 as a sales representative in New York, and has had extensive experience in the company's Merrimac and organic chemicals divisions' sales offices. In 1944 he was named branch manager of the Seattle, Wash., sales office.

NEW DETERGENT
Sail
FOR WHITER BRIGHTER WASHES

OIL SHAMPOO
NON DRYING

Old Spice
SMOOTH SHAVE

New! Economical!
Presto Fix
PLASTIC FIXATIVE
Fast Drying!
CRYSTAL CLEAR

What's New?

Facing Page

"Sail", a new detergent, made and packaged exclusively for A & P food stores by Ultra Chemical Works, Inc., Paterson, N. J. Blue package, shown upper left, displays signature prominently against white star-burst background. "Sail" retails for 25c.

A new, non-drying, natural oil base shampoo, called "Perfect Oil Shampoo", upper right, is being offered by Daggett & Ramsdell, Inc., Newark, N. J., in an attractive pint bottle. Special offer during months of July and August reduces price from regular $1.50 to $1.00.

Now available in pressurized container with non-leaking closure, is "Old Spice Smooth Shave," lower left, by Shulton, Inc., New York. "Spra-tainer" can made by Crown Can Co., Philadelphia. Valve by Oil Equipment Laboratories, Inc., Elizabeth, N. J. Six-ounce can retails for $1.00.

Introduced recently is "Presto Fix" plastic fixative, lower right, by Eresco, Chicago. New aerosol dispensed acrylic fixative is priced at $1.65 each; $19.80 per dozen. Dome type cans are by Continental Can Co., New York, and valves by Aerosol Research Co., Forest Park, Ill.

This Page

A new cap design has been adopted by Trager Manufacturing Co., Scranton, Pa., for its product, upper left, "Dr. Trager's Hartshorn Ammonia". The screw cap, by Crown Cork & Seal Co., Baltimore, is red with a white price spot and slogan giving company's age. Label is by J. Thomas Printing Co., Scranton.

Dressed in a new package with applied color lettering label, "Geiger Paint Soap", upper center, is being marketed nationally by J. W. Geiger Co., Minneapolis, Minn. Black ACL label provides product identification against white background. Four-ounce bottles and closures are by Owens-Illinois Glass Co., Toledo.

"Black Flag Rose and Flower Bomb" is the newest addition to the line of insecticides marketed by Boyle-Midway, Inc., New York. Containing lindane and rotenone, the bomb is operated by finger-tip valve which releases a fine mist spray. The product is priced at $1.69.

"Sprite" liquid detergent for dishes has been introduced by Sinclair Mfg. Co., Toledo, in a new 12-ounce bottle, featuring a contour shape for easy non-slip handling and pouring. Product is distributed in Ohio, Michigan, Indiana, Western New York, and Western Pennsylvania.

12 OUNCES
Sprite
instant suds
for DISHES
Better and more economical than soap for washing Dishes, Silver, Glassware, Pots and Pans. For fine Woolens, Silk, Nylon. For fine Auto Finishes. Wherever real washing or grease removal is wanted, without alkali harshness.
See back label for Directions

When there's much less suffering under the sun

Norda helps

Many of the most popular lotions, creams, colognes, and other such summer sun-fighters contain Norda ingredients. Norda fine perfume compounds have helped make them successful sellers.

Quality perfumed products are creations of care and skill. You know that Norda has the skill of long years of leadership. You know how much Norda cares about quality—Norda quality proves Norda care.

Good sales result from good scents. Norda has said so for years—Norda said so first, away back.

Use good scents for good sales, every season. Get your good scents from Norda. Send today for convincing samples.

Norda ESSENTIAL OIL AND CHEMICAL COMPANY, INC.
601 West 26th Street, New York 1, N. Y.

CHICAGO • LOS ANGELES • SAN FRANCISCO • DALLAS • MONTREAL • TORONTO • HAVANA • LONDON • PARIS • GRASSE

News

Firm Fetes Finehout

E. M. Finehout, vice-president of Los Angeles Soap Co., Los Angeles, was the guest of honor at a staff gath-

E. M. FINEHOUT

ering held recently to celebrate his completion of 50 years with the company. It was recalled by Paul H. Grimm, president, that Mr. Finehout began his career with the organization in 1903 when he started work on the shipping platform, to become successively a salesman, sales manager, and finally, in 1938, vice-president in charge of sales and advertising.

British Study Detergents

The British Government recently announced it has ordered a committee inquiry into the effects of increased use of synthetic detergents on the public's health. A committee, formed of representatives of medical, commercial and industrial interests, is conducting an investigation and will make such recommendations as are necessary to the health services. The group is considering sewage processing, medical evidence of increased dermatitis and any similar aspect of the expanded use of synthetic detergents. The committee was named after complaints were made in the House of Commons that the detergent industry was guilty of public damage in terms of corrosion of plumbing and an increased number of dermatitis cases. However, the Government pointed out that there is no reliable evidence yet to indicate any positive trend.

Cudahy Sells L.A. Plant

Sale of its packing plant at 308 E. Macy St., Los Angeles to a syndicate for a price in excess of $1,000,000 was reported recently by Cudahy Packing Co., Chicago. Cudahy retains its "Old Dutch Cleanser" and oleomargarine plants on a long-lease basis and continues to process and distribute its products to supply the West Coast. More than 10 acres of land will be developed by the purchasers for industrial use.

Am. Alcolac Moves in N. Y.

American Alcolac Corp., Baltimore, manufacturers of synthetic detergents, recently announced the removal of its New York offices to larger quarters in suite 7810, Empire State Building, 350 Fifth Ave., New York 1. The telephone number is OXford 5-2482.

Advertisers Name Lea

Donald R. Lea, White King Soap Co., Los Angeles, was named as a director for an additional year by the Junior Advertising Club of Los Angeles, at its annual installation dinner held recently at Ciro's Restaurant.

A. E. Bailey Dies

A. E. Bailey, 46, vice-president of Hum-Ko Co., Memphis and a former president of the American Oil Chemists' Society, died recently at his home in Memphis. A graduate of the University of New Mexico in 1927, his first job in oils and fats was with Cudahy Packing Co., Memphis in 1929. He left this company in 1941 to go to the Southern Regional Research Laboratory in New Orleans. After five years he became chief process engineer of the oil and fat section of Girdler Corp., Louisville, Ky. In September, 1950 he joined Hum-Ko as director of research.

McConnell to N. J. Chamber

Joseph H. McConnell, president, Colgate-Palmolive-Peet, Co., Jersey City, N. J., was one of nine new

JOSEPH H. McCONNELL

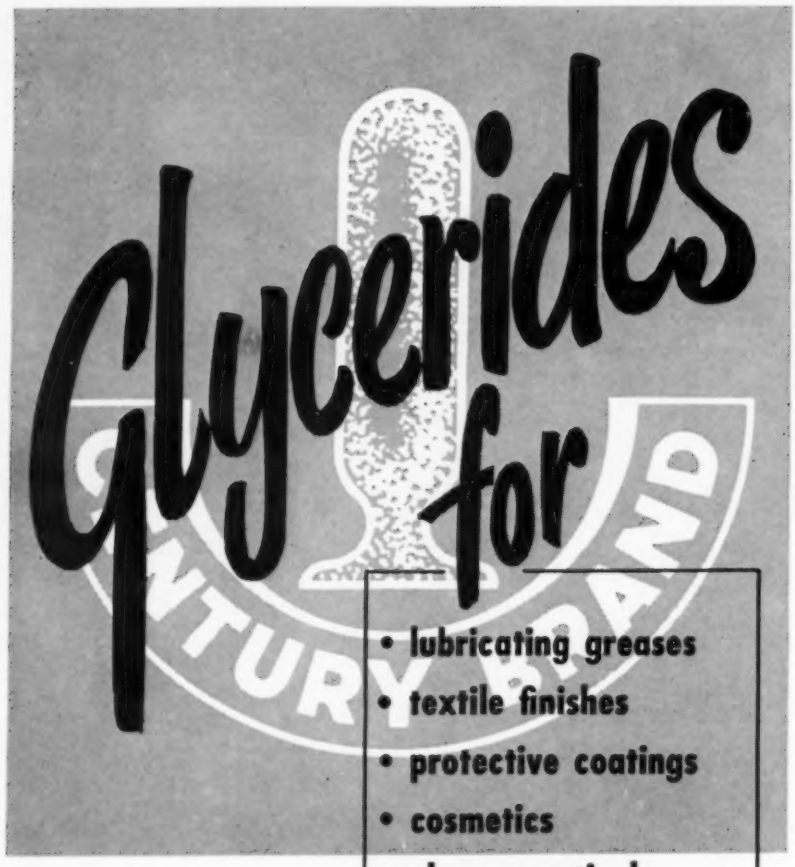
members elected to the New Jersey State Chamber of Commerce. Mr. McConnell was graduated from Davidson College in 1927 and from the University of Virginia Law School in 1931. After practicing law for two years he joined the legal staff of NRA in Washington, D. C. Prior to his appointment as Colgate's president, he served for over three years as president of the National Broadcasting Co. before he resigned in December, 1952.

Fels Names Town Agency

Fels & Co., Philadelphia, recently announced the appointment of Town Advertising Agency, Philadelphia, to handle its complete advertising program. Fels' line of packaged soaps includes "Fels-Naptha Soap," "Instant Fels-Naptha Soap Granules," "Felso Detergent" and "Rol Liquid Detergent."

Flett Heads CMRA

Lawrence H. Flett, National Aniline division of Allied Chemical and Dye Corp., New York, was elected president of the Chemical Market Research Association at the association's recent annual meeting held in New York.



■ CENWAX G *(Hydrogenated Castor Oil)*

CENWAX G is a glyceride chemically, although physically it resembles a wax. It is a hard, high melting point solid, available in finely beaded form, with practically no taste or odor. Typical applications are in lithium, barium or sodium greases; hot-melt paper coatings; extender for higher priced waxes in polishes. These CENWAX G specifications should suggest other uses:

F. F. A. (as Oleic Acid)	2.0 max.
Acid Number	4.0
Saponification Number	176-184
Iodine Value (WIJS)	1- 5
Melting Point (°C)	82- 85
Hydroxyl Value	155-165
Acetyl Value	137-148

■ CENTURY HYDREX 360 *(Hydrogenated Tallow Glyceride)*

This hardened tallow product is available in beads and its good color, high titre and low iodine value particularly suit it for use in certain textile finishes and lubricating greases.

Specifications	
Titre	(136.4-140.0°F) 58-60.0°C
Iodine Value (WIJS)	1-3
Free Fatty Acid	1-3%
Acid Number	2-6
Saponification Value	190-195
Color 5¼" Lovibond Column (Max.)	15 Yellow-2 Red

W. C. HARDESTY CO., Inc.
Century Stearic Acid Products, Inc.
41 East 42nd Street, New York 17, N. Y.
Plant: Dover, Ohio
In Canada: W. C. Hardesty Co. of Canada Ltd., Toronto

Little Receives LL.D.

Edward H. Little, chairman of the board of Colgate-Palmolive-Peet Co., Jersey City, N. J., received re-

E. H. LITTLE

cently an honorary Doctor of Laws degree at the commencement exercises of Davidson College, Davidson, N. C. He told the graduating class that opportunities today are greater than ever before in the history of our country, or of the world. Mr. Little, who was born in Charlotte, N. C., within eight miles of the school, worked his way up through the ranks of his firm, starting out as a soap salesman. He joined the old Colgate Co. in 1902, and later moved to the former Palmolive Co., holding various sales posts until 1928 when he was named general manager of foreign operations of Colgate-Palmolive-Peet Co. He was elected a vice-president in 1933, and president in 1938. Earlier this year he was elected chairman of the board, continuing as chief executive officer.

Monsanto Appoints Erickson

Appointment of Robert M. Erickson as production manager of its merchandising division was announced recently by Monsanto Chemical Co., St. Louis. At the same time, the company announced that Jack L. Ranney would succeed Mr. Erickson as manager of the Detergents, Inc., plant at Columbus, O. Detergents, Inc., which became a wholly-owned Monsanto subsidiary in February. Before his present appointment, Mr. Erickson served with Agricultural Laboratories, Inc., Columbus, with Hercules Powder Co., Wilmington, Del., and as vice-president and general manager of Eastern Packaging Co., a wholly-owned Monsanto subsidiary. Mr. Ranney joined Detergents, Inc., in 1948 after nine years' service with Virginia Sweet Foods, Inc.

Plan Glycerine Competition

The Glycerine Producers Assn., New York, recently announced a second annual Glycerine Research Award competition. Awards are to be presented at the next convention of the Association of American Soap and Glycerine Producers, Inc., in New York in January 1954. The cash awards of $1000, $300, and $200, respectively, are given for outstanding research in the application of glycerine or glycerine derivatives during the current year. Closing date for nominations for the 1953 awards is November 1, 1953.

Lower "Pluronics" Prices

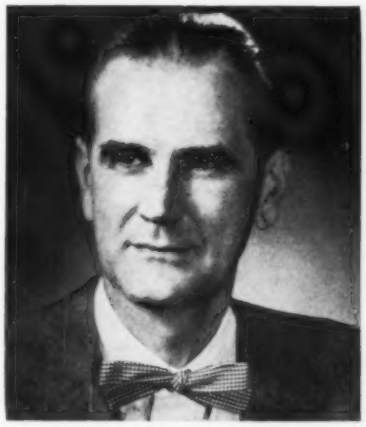
Lower prices for carload, truckload and mixed car quantities of its "Pluronics", nonionic detergent series, were announced recently by Wyandotte Chemicals Corp., Wyandotte, Mich. The new "Pluronics" prices (f.o.b.) are: "L44", "61", "62", "64"—55 gal. steel drums . . . 42.5 cents per pound; truckload or carload . . . 38.5 cents per pound. "F68" flake—55 gal. steel Leverpak drum . . . 48.5 cents per pound; truckload or carload . . . 43.5 cents per pound.

Boosts 'Soapless' Shampoos

"Soapless soaps and shampoos" do not harm the hair under normal conditions, and have certain advantages over soap, according to Dr. C. A. Dean, writing in the *Jersey City Journal*, recently. Dr. Dean found that soapless detergents are usually neutral in reaction and do not have any of the alkali effect that many of the soaps have. These compounds are also usually free from materials to which many people are allergic. However, he found that the soapless shampoos have about the same value as soap in cleaning the hair and scalp. The more popular ones are no more irritating than the mildest toilet soap, Dr. Dean stated.

New Lever Production Head

Appointment of James W. Flynn as production manager of its manufacturing division was announced



JAMES W. FLYNN

recently by Lever Brothers Co., New York. In his new position, Mr. Flynn supervises the operation of all Lever plants. He joined the company in 1932 as assistant chief chemist of the Edgewater, N. J., plant. After four years, he was appointed assistant to the superintendent at Hammond, Ind. He later was named eastern operations manager, and in November 1951 was appointed associate production manager. Mr. Flynn was graduated from Virginia Polytechnic Institute in 1929.

First BIMS Golf Outing

BIMS of Boston held their first golf outing of the season June 24 at the Weston (Mass.) Golf Club, it was announced by chairman Hart Harris, Jr., S. B. Penick & Co., New York. A roast beef dinner was served after the golfing and prizes were awarded to golfers and non-golfers.

Lever Strike Ends

The 87-day old strike of 1,000 workers at the Hammond, Ind., soap and shortening plant of Lever Bros. Co. ended June 15, when Local 336, CIO Gas, Coke & Chemical Workers agreed to settlement terms. Pay raises of four to eight cents an hour and a 23-cents-an-hour cost of living allowance, with other benefits, were accepted, these being the same terms offered by the company before the strike began last March 20.

6 = 10

when it's DRYMET*

the economical detergent silicate

Sixty pounds of DRYMET—*anhydrous* sodium metasilicate—will do the same amount of work as one hundred pounds of pentahydrate sodium metasilicate! You get approximately two thirds more chemical value in DRYMET, yet the price is less than one fourth higher at the producing factory!

DRYMET contains no water of crystalization. DRYMET is more economical to use on the basis of Na_2O (alkalinity) and SiO_2 (silicate) than *any other* type of anhydrous or hydrated detergent silicate.

If you are compounding with detergent silicates, investigate DRYMET for higher concentrations and longer mileage in such products as:

1) Floor Cleaners
2) Laundry Products
3) Metal Cleaners
4) Dairy Cleaners
5) Dishwashing Compounds
6) General Purpose Cleaners
7) Soap Builders
8) Paint Cleaners
9) Paper De-inking Compounds

Send for DRYMET File Folder containing complete technical information.

If you are using detergent silicates directly in your operations, investigate DRYMET for:

1) Reductions in product costs
2) Reductions in freight costs
3) Reductions in storage costs
4) Reductions in handling costs
5) Reductions in labor costs

* Reg. U. S. Pat. Off.

HEAVY CHEMICAL DEPARTMENT

COWLES CHEMICAL COMPANY

7016 EUCLID AVENUE • CLEVELAND 3, OHIO

Melody Joins D & O

Appointment of Jack Melody to its sales staff was announced recently by Dodge & Olcott, Inc., New York. His headquarters are in the firm's New York office. Prior to his joining D & O, Mr. Melody was employed by Ethyl Corp., New York, for five and one-half years as a sales engineer. He holds both a BS degree from Manhattan College and an LLB from Brooklyn Law School.

JACK MELODY

Sees No P&G Dividend Rise

Although record sales and increased earnings are expected for Procter & Gamble Co., Cincinnati, in fiscal 1953, there is evidence that current expectations of an increase in the 65-cent quarterly dividend are unfounded, it was predicted by *The Wall Street Journal*. In recent years, the *Journal* added, an urgent need for additional plant capacity both in this country and abroad made necessary abnormally large plant investments. During the past five years plant investment averaged more than $25 million annually, compared with $2.4 million in the years 1934 to 1939. This expansion has been financed entirely from earnings with the exception of the new chemical pulp plant now under construction in Florida, which is being financed by a $30 million loan arranged in April 1952. The new plant will be completed early in 1954 and will complete the company's expansion program, but it is expected there will be a constant need for yearly expenditures of sizeable amounts. This factor together with the $30 million long-term debt is expected to dictate a conservative dividend policy, at least for the time being, to conserve cash and maintain a strong financial position, the *Wall Street Journal* article concludes.

C-P-P to Build Warehouse

Plans to build a new four-story warehouse were announced recently by Colgate-Palmolive-Peet Co., Jersey City, N. J. The plant, which will cost approximately $2,000,000, is to be erected near the plant on Hudson St. between Sussex and Essex Sts.

U. S. Recovers Palm Oil

The General Services Administration said recently it had removed 841,680 pounds of congealed palm oil belonging to the national stockpile from unheated storage tanks in Baltimore and had transferred it to heated tanks without loss. The Senate Investigations Committee, headed by Senator Joseph McCarthy, Republican of Wisconsin, held hearings on the matter in February. It was brought out then that the palm oil, part of a supply of 1,139,100 pounds bought for the national stockpile, had been congealed in unheated tanks since June 1, 1949.

Cleaners Featured at AMA Show

THE technical exposition, held in Grand Central Palace, New York, concurrently with the recent 102nd annual meeting of the American Medical Association, comprised several exhibits pertinent to the field of cleansing and protecting the human skin.

Westwood Pharmaceuticals, Buffalo, N. Y., showed its "Lowila" detergent bar for soap-sensitive individuals. The product contains lauryl sulfoacetate diluted in corn dextrin, and its lather has a pH of 4.5 to 5.5, approximating that of healthy normal skin. "Lowila" liquid detergent, a super-saturated solution of aryl alkyl sulfonate, is suggested for general household cleansing, dishwashing and light laundering, especially of diapers and infants' wear. "Pro-Derna" protective cream contains 52.5 percent silicone in an inert hydrated aluminum silica base, and is recommended as a protective in dermatitis due to water, soap and other cleansers, as well as against many other common irritants.

"Aveeno" skin cleanser, containing colloidal oatmeal and one percent silica aerogel, is suggested as a replacement for soap and soap substitutes in various dermatoses, including poison ivy. It is a product of Aveeno Corp., New York, and distributed by Fougera & Co., New York.

The Procter & Gamble Co., Cincinnati, exhibit offered a series of time saving leaflet pads for doctors to hand to patients as instruction sheets for home hygiene. "Ivory" soap was the only P&G product featured in the booth.

The booth of John H. Breck, Inc., Springfield, Mass., showed the firm's range of cleaning preparations including a liquid hand cleaner, claimed to be non-alkaline, free of abrasives, and to have a pH range of 6.5 to 6.7. Baby soap, "Lavo", and shampoos for various types of hair were among the other products displayed here.

Mennen Co., Morristown, N. J., presented a full range of its baby preparations, including castile baby soap.

"Tersus", a soapless detergent made by Doak Pharmacal Co., New York, is an aliphatic ester with a slightly acid pH of 6.8. According to the manufacturer it does not combine with calcium to form calcium soaps, which might lead to skin irritation.

Winthrop-Stearns, Inc., New York, displayed "pHisoHex", antiseptic skin detergent composed of "pHisoderm" and three percent hexachlorophene. Rapidity of scrubbing action and long lasting effectiveness are claimed for this product, along with non-irritating and hypoallergenic properties.

Warfarin sodium derivative in its role as an intravenous anticoagulant for humans was prominently featured at the exhibit of Wisconsin Alumni Research Foundation, Madison, Wis.

Your Perfume Formula

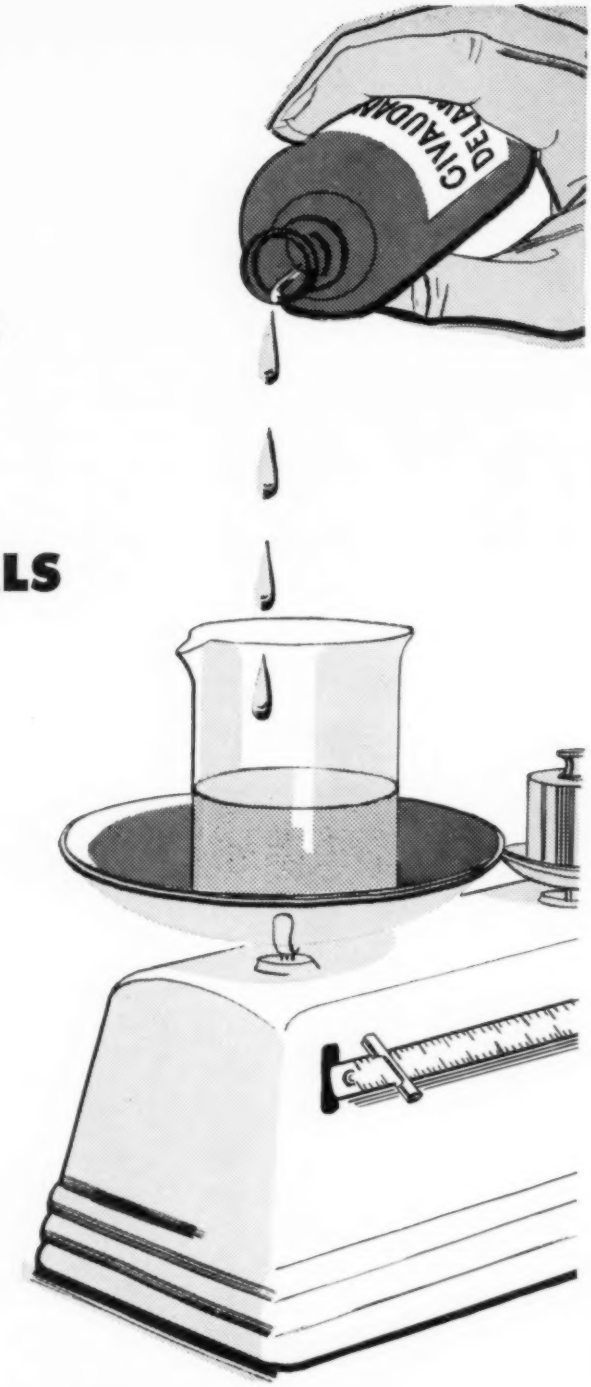
Deserves the Best...

GIVAUDAN AROMATIC CHEMICALS

Specify *Givaudan* and you are sure of outstanding chemical purity, olfactory uniformity and quality control. Givaudan manufactures hundreds of aromatic chemicals to assure you of ready availability of the aromatics best suited to your formula and its purpose.

Listed below are only a few of the many aromatic chemicals made by Givaudan.

Aldehyde C-10
Aldehyde C-11 Undecylenic
Aldehyde C-12 Lauric
Aldehyde C-12 MNA
Anethol
Benzyl Salicylate
Carvacrol Technical N.P.
Cetone Alpha
Cinnamic Alcohol
Citral Pure
Citronellol and Esters
Dimethyl Anthranilate
Folione® (Methyl Heptine Carbonate)
Gardenol (Styralyl Acetate)
Geraniol and Esters
Hydroxycitronellal Dimethyl Acetal
Indole
Isopulegol



Givaudan-Delawanna Inc.

Leaders in Aromatic Chemical Research
330 West 42nd Street, New York 36, N. Y.

Branches: Philadelphia • Boston • Cincinnati • Detroit
Chicago • Seattle • Los Angeles • Toronto

C-P-P Cuts Bath Soaps

Colgate - Palmolive - Peet Co., Jersey City, N. J., recently announced a five per cent reduction to wholesalers in the price of "Palmolive" and "Cashmere Bouquet" brands in both bath-size and regular. The new wholesale case price is 50 cents less than formerly. A bar of bath-size soap is now ½ cent cheaper and the regular is 1/3 of a cent less than formerly.

Solvay to Build New Plant

Plans for the construction of a new plant to produce chlorinated methane products on property owned by the company near Moundsville, W. Va., were announced recently by Solvay Process division, Allied Chemical & Dye Corp., New York. According to A. B. Chadwick, president, it is expected that investment for buildings and equipment will exceed $2,000,000 and that construction will be completed in about 10 months. The new plant will have facilities to produce methylene chloride, methyl chloride, chloroform and carbon tetrachloride. Chlorine necessary for production of these chlorinated methane products will be supplied by Solvay's chlorine-caustic soda. plant now being completed just south of Moundsville.

Foster MCA President

Election of William C. Foster, formerly Deputy Secretary of Defense, ECA Administrator, and president of Pressed and Welded Steel Products Co., as the first full-time president of the Manufacturing Chemists' Assn., was announced recently during the 81st annual meeting, held June 4-6, at the Greenbrier, White Sulfur Springs, W. Va. Charles S. Munson, who previously served as president of the association, was named chairman of the board. F. J. Emmerich, president of Allied Chemical & Dye Corp., New York, was named vice-chairman. Paul L. Davies, president of Food Machinery and Chemical Corp., San Jose, Calif., and Kenneth C. Towe, president of American Cyanamid Co., were elected vice-presidents. M. F. Crass, Jr., was elected secretary-treasurer.

New directors elected for the term expiring May 31, 1956 are: Stanley Crossland, Ethyl Corp.; R. L. Hockley, Davison Chemical Corp.; Howard S. Bunn, Union Carbide and Carbon Corp.; Walter Dannenbaum, E. I. du Pont de Nemours & Co.; James J. Kerrigan, Merck & Co.; Thomas S. Nichols, Mathieson Chemical Co.; E. W. Reid, Corn Products Refining Co.; and J. Albert Woods, Commercial Solvents Corp. Carl A. Gerstacker of Dow Chemical Co. was elected a director and the term of Rothe Weigel of Victor Chemical Works was extended a year to fill vacancies.

Hooker Ups Ewalt

Appointment of Wolford M. Ewalt as special products supervisor in the sales office of Hooker Electrochemical Co., Niagara Falls, N. Y., was announced recently by Robert E. Wilkin, vice-president and general sales manager. Employed by Hooker since 1941, Mr. Ewalt has been in charge of technical correspondence in the technical service division of the sales department for the past two and a half years. He was graduated from Transylvania College in 1938 and received a master's degree from the University of Kentucky in 1941.

Tyriver Joins C & C

Appointment of Robert E. Tyriver, formerly national sales manager for Allen B. Wrisley Soap Co., Chicago, as general sales manager for Cantrell & Cockrane Corp., New York, was announced recently. Before joining Wrisley, he was eastern sales manager for Colgate-Palmolive-Peet Co., Jersey City, N. J.

Mills Decision Upheld

A petition for rehearing by Plax Corp., Hartford, Conn., of a decision involving alleged patent infringement brought by Plax against Elmer E. Mills Corp., Chicago, was denied recently by the U. S. Court of Appeals for the 7th Circuit, Chicago. The court had ruled in Mills' favor on April 20, finding that there was no infringement since the Plax methods, and the Mills' methods were entirely different in the manufacture of plastic bottles.

Fretz Joins Verona

Nathan R. C. Fretz, formerly with Dodge & Olcott, Inc., New York, has been named to the sales staff of Verona Chemical Co., Newark, N. J., C. K. Wellenkamp announced recently.

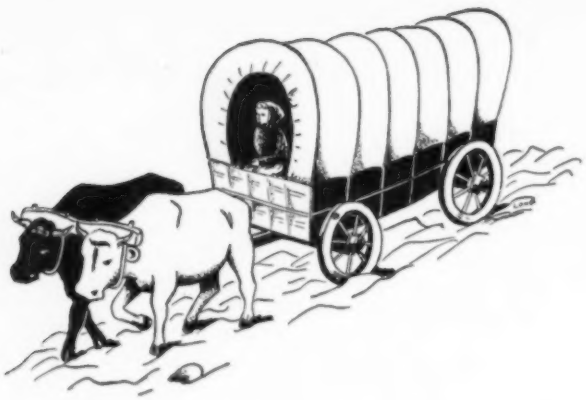
GDC Names Three

Three new appointments to its staff were announced recently by General Dyestuff Corp., New York. Henry F. Herrmann was named market manager and J. Robert Bonnar was appointed sales manager of the Dyestuff division. Donald E. Marnon became manager, Dyestuff technical department. Mr. Bonnar has been associated with GDC since 1935 and just prior to his appointment was manager of the Dyestuff technical department. Before joining GDC, he was with American Printing Co., Fall River, Mass. as technical director. Mr. Herrmann has written numerous papers and articles on the science of dyeing, informative labeling of textiles, and the relation of chemical structure to dye characteristics. Mr. Marnon joined the central research laboratory of General Aniline & Film Corp., New York, in December 1943. He came to GDC in May 1951 as assistant to the manager, Dyestuff technical department.

J. R. BONNAR

H. F. HERRMANN

D. E. MARNON



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New Specialties at Hospital Show

MANUFACTURERS of soaps and sanitary specialties for the hospital trade introduced a number of new products at the 23rd annual Tri-State Hospital Assembly held in Chicago, recently.

Huntington Laboratories, Huntington, Ind., featured a new compound, "Instru-San," for cleaning surgical instruments. Another new product is "H-3," a liquid detergent for varied applications. Featured in the exhibit was Huntington's "Germa-Medica" soap with "G-11", also bedside bath soaps, green soaps, germicides, disinfectants, deodorants, floor cleaning preparations and other items. Earl Brenn was in charge, assisted by several field representatives.

Hillyard Sales Co., St. Joseph, Mo., displayed seals, waxes, cleaners and finishes for maintenance work on all types of floors. Shortly to be introduced, it was announced, is a new product for treating dust mops used on asphalt tile flooring. Also being readied for the market is a new gym floor finish said to be 50 percent lighter and, with a low flash point. Standard products featured included "Shine-All," a neutral chemical cleaner for all types of floors; "H-101," a recently introduced odorless antiseptic cleaner; a liquid hand soap with "G-11", for surgical use; various hospital soaps and soap dispensers operated by foot pedal attachment. Visitors received copies of a maintenance manual explaining the nature, purposes and methods of application of the Hillyard floor maintenance products. In charge was Wm. A. Schmaltz, advertising manager.

Midland Laboratories, Dubuque, Ia., which is observing its 50th anniversary this year, presented an "All Purpose Concentrate," a free rinsing synthetic for all types of floors, woodwork, dishes, rayon fabrics and other applications. Another new product shown is "Midland Creme Cleanser" in paste form with a bactericide added, for use on porcelain, enamel, tile and metal surfaces. Also shown was Midland's full line of disinfectants, deodorants, surgical soaps with hexachlorophene, a drain pipe cleaner, soap dispensers with foot pedal release, and other products. Lee S. Jacobi, Chicago representative for over 15 years, and Walter L. Brown, veteran midwest field man, were in charge, assisted by Don Dolphin and Wm. Goff, covering Wisconsin and Michigan territory, respectively.

Vestal, Inc., St. Louis, Mo., featured "Septisol" surgical soap with "G-11," along with its extensive line of soaps for varied hospital uses. J. L. Martine, vice president and sales manager, was in charge.

Walter G. Legge Co., New York, promoted their line of slip-resistant floor polishes, cleaners, seals, colored finishes, static control coatings and other products, sold with the slogan "You're Safe When You Have Legge To Stand On." In charge was Chal Close, Chicago sales manager.

Hild Floor Machine Co., Chicago, showed their line of floor maintenance machines with noiseless features for hospital use, which were demonstrated by field representatives under the direction of Fred C. Hild, president.

Dutch Detergent Plant

Production of a synthetic washing powder will begin at a new plant in Vlaardingen, The Netherlands, in the near future, it was announced recently by Unilever, Ltd., London. The new operations will enable the firm to supply the Dutch, Belgian and Luxembourg markets. The French market will be served by the Union Chimique at Bobigny which was recently bought by Unilever.

Hopkins in New Post

Appointment of Abner C. Hopkins, Jr., as director of chemical sales for the chemical division of General Mills, Inc., Minneapolis, was announced recently by Sewall D. Andrews, Jr., general manager of the division. Mr. Hopkins' headquarters are at the company's Chemoil plant in Kankakee, Ill. He was formerly director of commercial chemical development at General Mills' research laboratories in Minneapolis, a position he held since joining the company a year ago.

Alloy Sales Appoints MRM

MRM Co., Brooklyn, N. Y., has been appointed as eastern states sales and service representative for Alloy Sales and Engineering Co., Atlanta, Ga., it was announced recently by Herman Manas, president of MRM. Alloy Sales manufactures a complete line of storage and processing equipment.

Frome Retires from Atlas

The retirement of W. G. Frome as vice-president, member of the board and of the executive committee was announced recently by the board of directors of Atlas Powder Co., Wilmington, Del. Dr. J. C. Copps, who succeeded Mr. Frome as general manager of the explosives department on Feb. 1, was elected to the board.

W. G. FROME

DR. J. C. COPPS

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LAUNDRY SOAPS

WHETHER chips or flakes,
powders, beads or bars,
your laundry soaps can be made
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of a carefully selected fragrance.
None will deny—
much less the users of your product—
that there's a psychological prod,
when shopping for soaps,
to favor that brand
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lends a cheerier note
to the tedium of "wash day blues".
A sure way, then, to UP your sales
is to acquire a perfume
that will elevate your product
in the user's favor.
Given opportunity to do so,
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a compelling and distinctive fragrance.

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BRANCH OFFICES *and* *STOCKS: *Atlanta, Georgia, Boston, Massachusetts, *Chicago, Illinois, Cincinnati, Ohio, Cleveland, Ohio, *Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, *St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F.* FACTORY: *Clifton, N. J.*

Oil Chemists Meet in Nov.

The 27th annual fall meeting of the American Oil Chemists' Society will be held in Chicago at the Sherman Hotel, Nov. 2-4, A. F. Kapecki, chairman, announced recently. Committee appointments for the convention are as follows: program—H. T. Spannuth, Wilson and Co.; exhibits—R. H. Rogers, Jr., Swift and Co.; entertainment—J. L. Schille, Best Foods; hotel—C. W. Hoerr, Armour and Co.; registration—A. A. Rodeghier, Durkee Famous Foods; inspection trips—Dewitte Nelson, Swift and Co.; publicity—R. J. Vander Wal, Armour and Co.; treasurer—N. W. Ziels, Lever Brothers Co. General topics under consideration for the program are soaps, drying oils, use of fats in animal feeding, industrial and engineering processes, margarine, and others.

At the same time, the Society announced that it will conduct its fifth short course at Texas A & M College, College Station, July 27-31, under the chairmanship of J. D. Lindsay. The theme will be the engineering aspects of oil seed processing, subdivided into such topics as extraction, deodorizing, statistical methods and quality control, instrumentation, heat transfer, corrosion, and filtration.

Owens Shifts Staff

Owens-Illinois Glass Co., Toledo, recently announced the appointment of three men to new posts within its sales and marketing departments. Harold J. Carr was named director of business research, with special emphasis on coordinating market studies, analyses and forecasts on the national economy. Henry C. Rudy has been named director of merchandising and coordinates the merchandising activities of the company and its subsidiaries. E. L. Herron was appointed director of advertising.

Mr. Carr joined Owens-Illinois in 1942 and the following year was named general manager of the closure and plastics division. He has been a vice-president of the company since 1947. Mr. Rudy, former prescription ware sales manager in the glass container division, joined the company in 1934 as a salesman in the New Orleans branch. Mr. Herron has been advertising and merchandising manager in the market development department of the glass container division since 1948. He joined Owens-Illinois in 1937 and served in the personnel division for two years before he was assigned to advertising work.

RAYMOND F. UNDERWOOD

Lever Ups Underwood

The Lever division of Lever Brothers Co., New York, recently named Raymond F. Underwood as general sales manager. He formerly was sales vice-president of the Pepsodent division. Also appointed were: Joseph L. Stevens, as field sales manager of the Lever divisions; Ambrose J. Addis, as merchandising vice-president of the Pepsodent division; William H. Scully, as advertising vice-president of the Pepsodent division; and William K. Eastham, as advertising manager of the Good Luck division.

Diamond Expands Plant

More than 24,000 additional square feet of storage space have been added to the Jersey City, N. J., silicate plant, it was announced recently by Diamond Alkali Co., Cleveland. The plant, which is now in operation, consists of a steel frame-transite siding structure 200 feet long by 120 feet wide. A masonry wing, 21 feet by 52 feet, attached to the east end, houses the employees' locker room, lunch room, service quarters and office. A similar project recently was completed at the company's Cincinnati silicate plant, according to W. H. Evans, general manager of silicate operations.

Ungerer Names Schumm

Appointment of Fred Schumm as manager of its flavoring department was announced recently by Ungerer & Co., New York. His headquarters are at the Ungerer plant in Totowa, N. J.

NSF Dishwasher Standard

Publication of the third in a series of nationally uniform sanitation standards in the use of food-service and other equipment has recently been announced by Dr. Henry F. Vaughn, president, National Sanitation Foundation, Ann Arbor, Mich. Known as "NSF Standard No. 3, Spray-Type Dishwashing Machines," the 62-page booklet gives standards agreed upon by manufacturers and health authorities on what methods of washing dishes, utensils and glasses are satisfactory from the health point of view for use in public eating places. Included is a section on the sanitary standards for the construction of spray-tube dishwashing machines with recommendations covering installation.

Committee D-12 Issues Data

ASTM specifications and standards developed by Committee D-12 on Soap and Other Detergents have been compiled and are now available. Among the items covered by the 26 specifications are bar, chip, powder, and toilet soaps; borax, caustic soda, sodium and trisodium phosphate. The book includes nine methods for sampling and analysis of soaps, synthetic detergents, alkaline detergents, surface-active agents, metal cleaning compositions, and aluminum cleaners, as well as definitions of terms relating to soaps and other detergents.

Four appendices give four proposed methods on surface and interfacial tension of solutions of surface-active agents; rinsing properties of metal cleaners; buffering action of metal cleaners; and total immersion corrosion test for soak tank metal cleaners.

Copies of the 144-page, paper-covered publication are available from ASTM headquarters, 19-16 Race Street, Philadelphia 3, at $2.25. The price to members is $1.70.

How to pull profits out of a pail

Maintenance and supply men like Armour's dishwashing, car washing, rug cleaning and general maintenance products so well that converters make lots of money by just repackaging them. They don't do anything else to them.

And jobbers find that they can sell Armour soaps and synthetics without pushing or "hard selling." So they make money, too, by handling Armour's line of improved maintenance products.

Everybody pulls profits out of the common scrub-bucket.

Maintenance products

Do-All Synthetic Detergent. An all-purpose anionic with high suds stability, Do-All is already built. It can be used for hand dishwashing, maintenance, rug cleaning, etc. You can also use it to compound more specialized products.

Regal Synthetic Detergent Beads. Very stable under acid or alkaline conditions, Regal is a versatile anionic alkyl aryl sulfonate with high wetting, penetrating and detergent properties. It can be used for almost any industrial job from dishwashing to car washing.

There's profit in Armour hand soaps, too

Here Armour offers you the base for compounding superior hand soaps. With **Powdered Dial** and **Arconomy Powder** you can make a soap for any institution or industrial plant.

Where germicidal protection is required—in hospitals, heavy industrial plants—use *Powdered Dial.* Perfect for compounding hand soaps or for repackaging as is, *Powdered Dial* is Armour's famous bath and toilet soap in powdered form. It provides Hexachlorophene protection—and that makes it popular with industrial users and institutions.

For light factory and office work, we recommend *Arconomy Powder.* This is powdered Dial *without* Hexachlorophene. Arconomy is a 20% coconut oil soap (instead of the usual 5 to 15%) assuring fast and copious suds in powdered hand soaps. It's great for dispenser use, as is or compounded. Write to Armour today for further information on these and the rest of our complete line.

ARMOUR *Industrial Soap Department*

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Hosiery Lever Premium

Lever Brothers Co., New York, recently announced its "Pair and a Spare" Cannon hosiery premium offer designed to bring nylon hosiery to housewives at factory prices. Seven packages are currently being redesigned to carry full details of the premium—"Surf", "Breeze", "Lux Flakes", "Silver Dust", "Rinso", "Rinso Detergent", Good Luck Margarine", "Pepsodent Shadow Wave" and "Rayve Creme Shampoo". Advertising support by all brands is spearheading promotion, publicity and merchandising activities. Lever's "Pair and a Spare" plan offers three nationally advertised finest quality Cannon nylon stockings for $1.00, plus box tops, a saving of 85 cents or, at three pairs for $2.00, a saving of $1.70. In most cases the offer calls for one economy size box top or two large size box tops plus the $1.00.

At the same time, announcement was also made of an exclusive contract between Cannon Mills and Lever Brothers, in which Cannon supplies its highest quality, nationally advertised nylons for the offer. They are 51 gauge, 15 denier, fully proportioned in varying sizes and two shades.

Monsanto Names Pastene

Appointment of A. J. Pastene to assist in the administration of the executive development program, Monsanto Chemical Co., St. Louis, was announced by Charles Allen Thomas, president, recently. Mr. Pastene formerly served as manager of the company's John F. Queeny plant. At the same time, the company announced that Dr. John R. Durland has been appointed to succeed Mr. Pastene as manager of the Queeny plant.

A graduate of MIT in 1914, Mr. Pastene joined the Queeny plant as operating supervisor in 1928 and was manufacturing superintendent when he was appointed plant manager in 1946. Mr. Durland joined Monsanto in 1939, following his graduation from the University of Wisconsin. He was assigned to the company's Nitro, W. Va., plant as research chemist in 1941 and was plant manager there from 1947 to 1952, when he was appointed assistant production manager of the organic chemicals division.

Columbia Expands Plants

Additional chlorine-caustic soda producing units have been placed in operation at its plants at Natrium, W. Va., and Corpus Christi, Tex., Columbia-Southern Chemical Corp., Pittsburgh, announced recently. According to E. T. Asplundh, president, the new production lines have enabled the firm to double production capacity at Corpus Christi and increase Natrium capacity by approximately 35 percent. In addition, approximately $50,000,000 will be spent on new equipment at Columbia-Southern's plants at Barberton, O., and Lake Charles, La., according to Mr. Asplundh.

PMMI to Meet at Skytop

The 21st annual meeting of the Packaging Machinery Manufacturers Institute will be held from Sept. 20-23, at Skytop Lodge, Skytop, Pa., it was announced recently by Edwin H. Schmitz, institute president.

Heidt Joins D&O

Appointment of Henry Heidt to the metropolitan New York sales staff was announced recently by Dodge & Olcott, Inc., New York. Mr. Heidt has previously been associated with National Biscuit Co. and Schoonmaker Laboratories, Caldwell, N. J. His headquarters are in the company's New York office.

HENRY HEIDT

Curtis Joins Diamond

Appointment of Henry S. Curtis as manager of production and engineering of the organic chemicals division was announced recently by Diamond Alkali Co., Cleveland. Mr. Curtis, who replaces Charles H. Kolker, is making his headquarters at the company's plant at Houston, Tex. A 1933 graduate of Ohio State University, he was employed for nine years thereafter by Westvaco Chemical Division, Food Machinery and Chemical Corp., New York. From 1946 until 1950 he was plant manager of the vinyl chloride plant first owned by Glenn L. Martin Co. in Painesville, O., and later by United States Rubber Co. He joined a Diamond subsidiary in January 1951 as assistant general superintendent at the Painesville magnesium plant of Diamond Magnesium Co. In August 1952, he was appointed chief engineer of Diamond's organic chemicals division.

Full Soda Ash Production

Soda ash refining facilities at Westvaco, Wyo., have reached commercial production levels and deliveries are now being made, according to a recent announcement by Food Machinery & Chemical Corp., New York. The company's Westvaco Chemical division is operating the plant for Intermountain Chemical Co. and also acts as exclusive sales agent. Both light and dense ash are available.

Gincel at Credit Congress

Clare I. Gincel, credit manager of Givaudan-Delawanna, Inc., New York, recently returned from Montreal, Canada, where she attended the 57th Annual Credit Congress of the National Assn. of Credit Men.

Dean Joins Westvaco

Appointment of Robert R. Dean to its technical sales staff was announced recently by Westvaco Chemical Division, Food Machinery & Chemical Corp., New York. A graduate of Indiana University, Mr. Dean has previously been associated with Virginia-Carolina Chemical Corp., Diamond Alkali Co., American Cyanamid Co. and Johns-Manville, Inc.

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CLEAR or CLOUDY

To suit your purpose

Felton "Clear Aquaromes" are completely soluble in water, leave no trace of oil film or cloudiness and delightfully and economically perfume a wide variety of products such as LIQUID SOAPS, SHAMPOOS, THEATRE SPRAYS, DEODORANT SPRAYS and many others.

Felton "Cloudy Aquaromes" mix readily with all water base products, to form a dense, milky, permanent cloud, pleasantly perfumed at a very low cost. Ideally suited for DISINFECTANT & DEODORANT SPRAYS, FORMALDEHYDE PREPARATIONS and AIR PURIFIERS.

Send us a sample of the product you want to perfume, either clear or cloudy, and our laboratory will recommend the correct AQUAROME.—Available in a wide variety of delightful odors.

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Philadelphia · St. Louis · Toronto
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Bids and AWARDS

FSS Laundry Soap Opening

In a recent opening for miscellaneous supplies by the Federal Supply Service, New York, the low bid of $2.80 on 400 cases of ordinary laundry bar soap was submitted by J. Eavenson & Sons Division of Wilson Co., Camden, N. J.

Iowa Low Soap Powder Bid

Iowa Soap Co., Burlington, submitted the low bid on 50,000 pounds of soap powder for a, origin; b, Memphis, and c, Pauline, Kans., in a recent opening for miscellaneous supplies by the Army Quartermaster, New York. The Iowa bid was: item a, 4 cents; b, 5.2 cents; c, 4.86 cents.

Soap Award to C-P-P

The award on 614,007 bars of ordinary soap, included in a recent opening for miscellaneous supplies by the Quartermaster Corps, New York, went to Colgate-Palmolive-Peet Co., Jersey City, N. J. The C-P-P bid was 4.417 cents a bar, $27,120.69 total.

Low Insecticide Bid

General Chemical Division, Allied Chemical & Dye Corp., New York, submitted the low bid of $6.95 on 874 gallons of insecticide for Norfolk and Oakland, in a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York.

Cleaner Award to Turco

The award on 400,000 pounds of cleaning compound, included in a recent opening for miscellaneous supplies by Raritan Arsenal, Raritan, N. J., went to Turco Products, Inc., Los Angeles, with bid $40,690 on the total.

Trio Low Bids on Soap, Wax

Low bids in two recent openings for miscellaneous supplies by the Federal Supply Service, New York, went to Trio Chemical Works, Brooklyn. The low bid of $6.80 was submitted by Trio on 160 drums of general purpose soap paste, and on 4,400 gallons of liquid floor wax Trio also was low bidder with 42 cents.

Low Soap Bids

A recent opening for miscellaneous supplies by the Federal Supply Service, New York, included item 1, 11,000 cakes of grit soap and item 2, 700 cases of toilet soap, delivery to Newark, N. J. The low bid of $3.47 on item two was submitted by J. Eavenson & Sons Division of Wilson Co., Camden, N. J. Only bidder on item one was Orford Soap Co. (subsidiary of Bon Ami Co.), New York, with 2.9486 cents.

USAF Detergent Award

Granberry Supply Co., San Antonio, Tex., received the award for hand dishwashing detergent in a recent opening for miscellaneous supplies by the Air Force, Lackland, Tex., with a bid of $1.48.

Low Bids on Insecticide

The Navy Purchasing Office, New York, included 125,996 gallons of insecticide, airplane spray, for a, Atlanta, b, Richmond, and c, Auburn, in a recent opening for miscellaneous supplies. Low bids were as follows: Chemical Formulators, Inc., Charlestown, W. Va., destination a, 74 cents, domestic, 79 cents, export; Stauffer Chemical Co., New York, destination c, 74.74 cents; and Victory Oil Corp., Philadelphia, destination b, 71.78 cents.

Stevens Soap Powder Bid

Stevens Soap Corp., Brooklyn, N. Y., submitted the low bid of 5.96 cents on 50,000 pounds of soap powder for delivery to Memphis, Tenn., in a recent opening for miscellaneous supplies by Federal Supply Service, New York.

Borax Soap Bids

Pacific Coast Borax Co., Los Angeles, was the only bidder on two items of borax soap powder: item 1, 1,600 cartons, and item 2, 5,600 cartons, in a recent opening for miscellaneous supplies by the Federal Supply Service, New York. The Pacific bids were 39.47 cents on item 1 and 58.22 cents on item 2.

QM Award to Colgate

The award on 197,200 pounds of laundry chip soap in 100-pound containers for b. Mallory and c. Topeka, in a recent opening for miscellaneous supplies by the Quartermaster Corps, New York, went to Colgate-Palmolive-Peet Co., Jersey City, N. J. The low bids were $5.86 for item b and $5.41 for item c, or a total of $11,112.22.

Low Toilet Soap Bids

In a recent opening for miscellaneous supplies by the Quartermaster Corps, New York, for 375,000 two-ounce cakes of toilet soap for 1a1, Columbus; 1a2, Richmond; 1a3 & 1a4, Atlanta; 1b1, Columbus; 1b2, Richmond; 1b3 & 1b4, Atlanta, Colgate-Palmolive-Peet Co., Jersey City, N. J., was low bidder on items 1a1 through 1a3, with 1.382 cents; and only bidder on 1a4, with 1.78 cents; 1b1 through 1b3 with 1.382 cents; and on 1b4 with 1.78 cents.

V.A. Shaving Soap Bids

A recent opening for miscellaneous supplies by the Veterans Administration, Washington, D. C., included liquid shaving soap, items 1-3, 1,728 cans, not less than five ounces; items 4-6, 6,912 cans, not less than 10 ounces. Low bids were submitted by: Campbell Products Corp., Bernsville, Ill., items 1 and 2, 31.5 cents, six ounces; item 3, 30 cents, six ounces; and Richelle Laboratories, Brooklyn, item 4, 38.6 cents, 11 ounces; item 5, 39.5 cents, and item 6, 35.5 cents.

Chew Carbon Tet. Bid

In a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York, for 22,700 gallons of carbon tetrachloride for a, Scotia, N. Y., and b, Mechanicsburg, Pa., the low bid was submitted by J. A. Chew Co., New York, on item a, $1.378, b, $1.379; f.o.b. Kearny, N. J., a, $1.305 and b, $1.295.

schimmel

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by Schimmel

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SCHIMMEL & CO., INC.

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NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12(a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the *Gazette*. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany notice of opposition.

Crumbly—This for wall paper cleaner. Filed Oct. 27, 1952 by Absorene Manufacturing Co., St. Louis. Claims use since Jan. 10, 1906.

Trust — This for toilet soap. Filed Oct. 28, 1952 by Colgate-Palmolive-Peet Co., Jersey City, N. J. Claims use since Sept. 9, 1952.

Sage—This for cleaning preparation in liquid form for cleaning floors, woodwork, windows, rugs, etc. Filed Aug. 24, 1950 by Sage Laboratories, Inc., New York. Claims use since May, 1950.

Zorbit—This for chemical compounds for cleaning and preserving fuel systems, and for eliminating water, rust, and gum deposits. Filed Feb. 5, 1952 by R. M. Hollingshead Corp., Camden, N. J. Claims use since May, 1947.

Fastac—This for liquid automobile cleaner. Filed July 30, 1952 by Freeman & Freeman, Inc., Denver. Claims use since June 8, 1952.

Ultrasonic—This for shampoo and soap. Filed Aug. 1, 1952 by Post Institute, New York. Claims use since Nov. 10, 1949.

Rik Rak — This for scouring powder. Filed Apr. 1, 1952 by Safeway Stores, Inc., Oakland, Calif. Claims use since Dec. 15, 1949.

Wicked Willie Weevil—This for insecticides. Filed Sept. 12, 1952 by National Distillers Products Corp., New York. Claims use since June 25, 1952.

Malathion — This for insecticide. Filed Jan. 2, 1953 by American Cyanamid Co., New York. Claims use since Dec. 9, 1952.

Diamond Alkali Chemicals — This for detergent compositions for use in family and commercial laundry operations. Filed June 21, 1951 by Diamond Alkali Co., Cleveland. Claims use since July, 1949.

Pexide — This for powdered soap, flaked soap, bar soap, and dishwashing detergent. Filed June 21, 1952 by Peck's Products Co., St. Louis. Claims use since 1926.

Easy-Aid — This for porcelain enamel cleaner. Filed Aug. 13, 1952 by G. N. Coughlan Co., West Orange, N. J. Claims use since July 23, 1952.

Bright Promise — This for shampoo. Filed Aug. 28, 1952 by Gillete Co., Boston. Claims use since July 15, 1952.

Pelron — This for cleaning metals, emulsion cleaners, degreasing solvents, etc. Filed Sept. 2, 1952 by Pelron Corp., Lyons, Ill. Claims use since July 24, 1950.

Kontrex — This for cleaning commercial and industrial bake pans. Filed Oct. 4, 1952 by Diversey Corp., Chicago. Claims use since Apr. 15, 1952.

Sail — This for detergent in powder form. Filed Oct. 17, 1952 by Great Atlantic and Pacific Tea Co., New York. Claims use since Oct. 3, 1952.

Mar-go—This for cleaning and polishing furniture. Filed Mar. 31, 1952 by Margo Laboratories, Oakland, Calif. Claims use since Sept. 29, 1951.

Benzil-T—This for exterminating lice and bugs. Filed Sept. 15, 1948 by Berwyn Chemical Co., Berwyn, Pa. Claims use since May 6, 1946.

Warfarin — This for rat and mouse poison. Filed Aug. 8, 1951 by Wisconsin Alumni Research Foundation, Madison, Wis. Claims use since July 26, 1951.

Puff—This for room deodorizers. Filed Nov. 2, 1951 by Regal Chemical Corp., Brooklyn, N. Y. Claims use since Oct. 31, 1951.

D-Clor — This for insecticides. Filed June 24, 1952 by Terre Co., Rochelle Park, N. J. Claims use since Apr. 9, 1948.

Repel-A-Mist—This for valved containers charged with insecticide and gas under pressure. Filed July 18, 1952 by Knapp-Monarch Co., St. Louis. Claims use since Jan. 15, 1947.

Maya—This for insect repellent. Filed Nov. 13, 1952 by McKesson & Robbins, Inc., New York. Claims use since May 10, 1950.

Mixit — This for insecticidal solution for bathing small domestic animals. Filed Apr. 21, 1951 by Sentco, Inc., West Palm Beach, Fla. Claims use since May 1948.

Soil-A-Way — This for dishwashing compound. Filed Feb. 2, 1951 by Economics Laboratory, Inc., St. Paul, Minn. Claims use since Nov. 27, 1950.

Try—This for household detergent. Filed Sept. 29, 1951 by Wally Shulan & Co., New York. Claims use since Sept. 1, 1951.

Try-it—This for liquid detergent. Filed May 28, 1952 by Stanley Home Products, Inc., Westfield, Mass. Claims use since July 24, 1951.

Sta-Suds — This for synthetic detergent powder for hand and machine washing operations. Filed Aug. 25, 1952 by Knoten Co., Memphis, Tenn. Claims use since Dec. 12, 1949.

Wunda-Bright—This for automobile polish. Filed July 29, 1950 by Able Industries Corp., New York. Claims use since June 21, 1950.

Good-aire—This for space deodorant. Filed Sept. 20, 1948 by Bridgeport Brass Co., Bridgeport, Conn. Claims use since Sept. 1, 1948.

TPC—This for disinfectants, insecticides, fungicides. Filed Feb. 2, 1951 by Tennessee Products & Chemical Corp., Nashville, Tenn. Claims use since Aug. 1, 1930.

Gy-zip—This for destroying insects and vermin. Filed Apr. 17, 1951 by Geigy Co., New York. Claims use since Feb. 12, 1951.

Mildu-Master—This for moth repellent. Filed Feb. 15, 1952 by Champion Textile Finishing Co., Chicago. Claims use since January 1952.

Rinspeed—This for washing of textiles and facilitating the rinsing of the same. Filed June 24, 1952 by Beach Soap Co., Lawrence, Mass. Claims use since Apr. 30, 1952.

Rat-cide—This for rodenticide. Filed July 5, 1952 by Weevil-Cide Co., Kansas City, Mo. Claims use since about Apr. 12, 1932.

Sani-didy—This for deodorizer, germicide, and disinfectant for clothing, particularly diapers. Filed Sept. 29, 1952 by Virginia S. Carson, Kansas City, Mo. Claims use since Jan. 15, 1951.

Barbicide—This for disinfectant. Filed Dec. 3, 1952 by King Research, Inc., Brooklyn, N. Y. Claims use since Jan. 15, 1951.

Castafitose—This for germicidal and fungicidal composition for human use. Filed Mar. 27, 1952 by Neil Castaldo, Cranford, N. J. Claims use since Aug. 9, 1951.

West Point—This for shaving cream. Filed Feb. 25, 1952 by Associated Brands, Inc. Brooklyn. Claims use since Oct. 9, 1931.

Wind-O-Wash—This for cleaning glass. Filed Oct. 1, 1947 by C. M. Kimball Co., Boston. Claims use since Dec. 7, 1931.

Urin-X—This for cleaning compound for household textile furnishings. Filed Apr. 26, 1952 by Wade, Wenger & Associates, Inc., Chicago. Claims use since Feb. 18, 1952.

C-20—This for powdered laundry soap. Filed Sept. 20, 1952 by Mt. Hood Soap Co., Portland, Ore. Claims use since 1949.

HL—This for shaving cream. Filed June 8, 1950 by Hammond Laboratory, Gloucester, Mass. Claims use since Nov. 29, 1949.

PC—This for hand cream used to remove stains resulting from the handling of duplicating materials. Filed Dec. 27, 1950 by Polychrome Corp., Yonkers, N. Y. Claims use since February 1936.

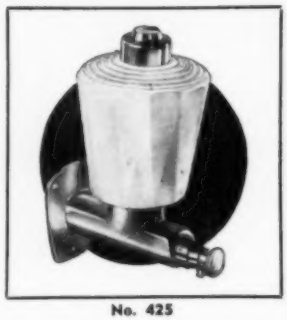
Pure-sure—This for automobile shampoo. Filed Sept. 29, 1950 by Pure Oil Co., Chicago. Claims use since on or about July 27, 1944.

Rox—This for bleaching, cleansing, antiseptic, and germicidal com-

(*Turn to Page 90*)

No. 100

No. 300



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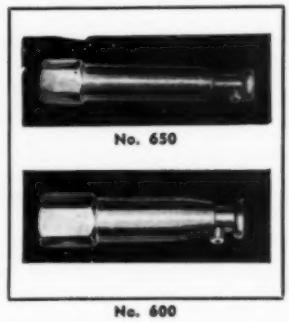

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Our technical staff will be happy to estimate the savings possible on any volume you may select. Just jot down in the block below a tonnage figure. Our engineers will figure out for you the cost of 73% liquor, vs. the cost of 50% liquor with the addition of dry caustic to bring it up to similar concentration.

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Gentlemen: For comparative purposes only, please estimate for me the cost equivalents of_____tons of 73% caustic soda.

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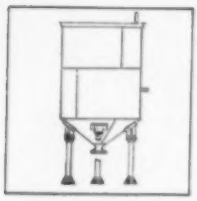
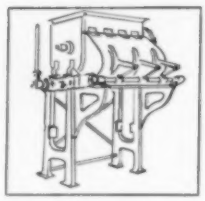
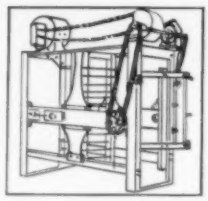


KETTLES

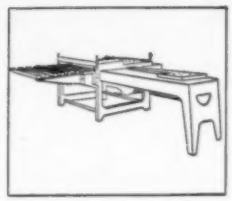
CRUTCHERS



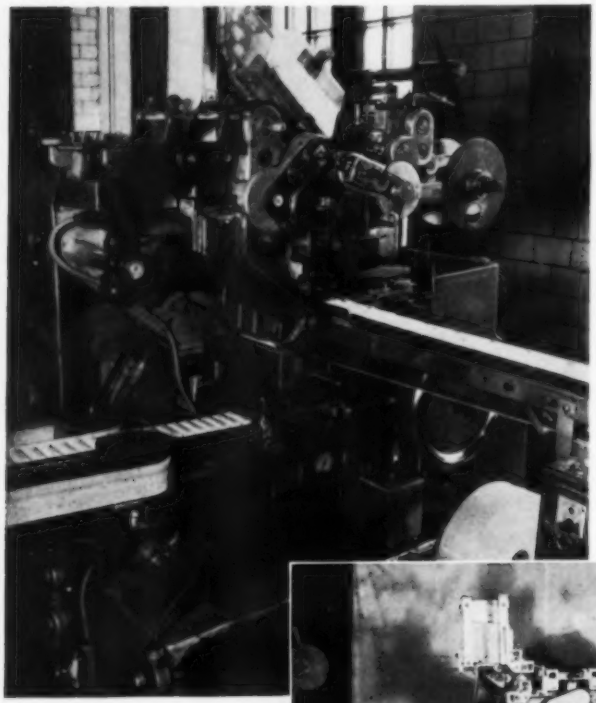
AMALGAMATORS



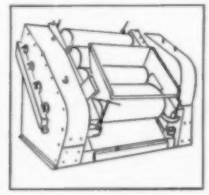
SLABBERS



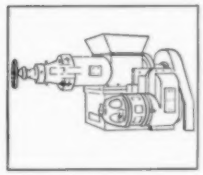
L-S CUTTERS



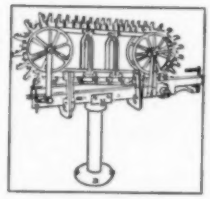
High Speed WRAPPING MACHINES for Toilet, Bath and Hotel Sized SOAP



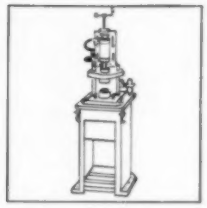
MILLS



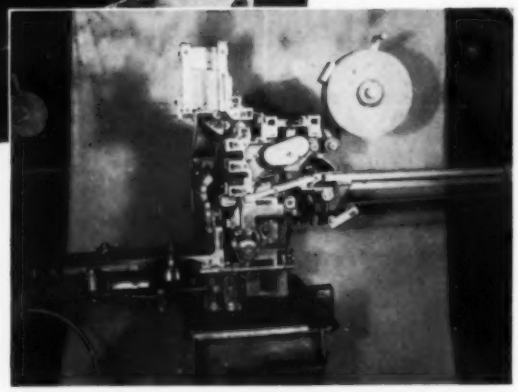
PLODDERS



T-S CUTTERS

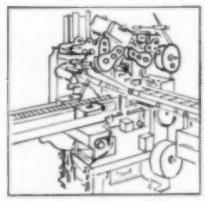


PRESSES



MODEL S wraps toilet and bath sizes up to 200 per minute on cakes suitable for high speed wrapping. Sheet or roll feeds.

MODEL MS wraps up to 300 cakes per minute of hotel sized miniatures. Sheet or roll feeds.



WRAPPERS

VAN BUREN Cutting and Wrapping Machines are widely used by leading Soap Manufacturers throughout the world. Many of these very efficient machines are operating "around the clock — three shifts per day," cleanly cutting without scrap, thence automatically feeding to the presses, and to the wrappers at varying speeds up to 300 cakes per minute, according to sizes desired.

HOUCHIN builds all the kindred machinery needed for completely automatic, continuous or intermittent, soap production.

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Non-Detergent Surfactant Uses

THE ROLE of synthetic surface-active agents in various industries other than in the manufacture of detergents is outlined in an article by Jean Henrion in *Industrie Chimique Belge*, 1952, No. 17, page 265. After briefly describing the mechanism of wetting, emulsifying, and foaming action and classifying surface active agents the author explains how they are used in the textile industry. Introduction of synthetics has made possible simultaneous degumming, cleaning and dyeing of rayons. Soap has been supplanted by synthetics in the degreasing and dyeing of wool. While sulfated fatty alcohols and products of the "Igepon" type were mostly used for this purpose before the war, these have now largely been replaced by alkyl sulfates and nonionics, especially in cold wetting operations.

In the cotton industry the superior wetting properties of surfactants are being utilized in the removal of wax and other impurities from the raw cotton. The scouring of silk, which consists of removal of the natural glaze from the fiber, is another field for application of synthetic surface-active agents in the textile industry.

Sodium alkyl sulfates, alkyl aryl sulfonates and nonionics are used by leather processors in the degreasing of hides. Addition of wetting agents expedites penetration of the tanning bath into the pores of the hides, thereby reducing the time required for swelling. Penetration of dyestuffs into the fibers is aided by the presence of sodium alkyl sulfates, alkyl aryl sulfonates and quaternary ammonium salts, which thus facilitate even dyeing of leather.

In the metal industries syndets enter into special cleaning and pickling, into rust and corrosion prevention, and into electrometallurgy. Alkyl sulfates and alkyl aryl sulfonates are added to strongly alkaline solutions of silicates, phosphates, sodium carbonate or caustic soda for speedy degreasing action. The presence of a wetting agent may shorten the time of an acid pickling process by as much as 25 percent, while apparently exercising an inhibitory effect the mechanism of which is not quite understood. Incorporation of a surfactant causes formation of a light foam on the surface of the pickling bath which prevents acid splashes, while the size of the hydrogen bubbles is reduced. Alkylaryl sulfonates, which exhibit particularly good acid stability are very effective in acid pickling operations.

In the field of corrosion prevention surface active agents frequently play the part of auxiliaries. Where iron and steel are treated for this purpose with phosphoric acid or acid phosphates, a thin protective layer is formed on the metal. Alkyl sulfonates are added to the bath because their wetting properties permit a more even treatment of the metal surfaces. To prevent tarnishing of objects made of silver their surfaces are treated with aqueous solutions of salts of fatty amines, in which case the preventive itself acts also as an inhibitor.

The use of surface active agents in galvanoplastics permits the widening of pH spectra, a greater variation of temperature and current density or modification of the size of the crystals of the deposited metal, thus improving the brilliance of the resulting plate. Through the lowering of surface tension in the galvano-plastic solution, the gas bubbles detach themselves more readily from the cathode, and formation of marks and pits is thus avoided. Sodium alkyl sulfates, alkylaryl sulfonates and "Igepons" are most in demand for this purpose. The first two types of compounds play a part also in polishing formulations.

Surface active agents are important in the flotation of minerals. Hematite, for instance, is separated from its impurities by means of collecting agents such as fatty acids and lime to which an emulsifier is added, such as a sulfated fatty acid ester or sulfonated phenols. Molybdenite is extracted by the use of a neutral mineral oil with monoglyceride sulfate added as emulsifying agent. Long-chain fatty acids and quaternary ammonium salts are widely used for the flotation of acid minerals, especially in the removal of siliceous waste rock from non-metallic minerals. Cationics serve well in the flotation of iron oxide, manganese oxide, zinc sulfide, lead sulfide, micas and other minerals.

In the removal of dust particles from gases, incorporation of a wetting agent in the spraying water reduces the quantities of water required for the purpose.

Saponifying Lanolin

Lanolin soap powder for addition to powdered products in the soap, sanitary chemicals, and cosmetics fields has just been introduced in commercial quantities by N. I. Malmstrom & Co., Brooklyn, under the trade name "Lanomal". The new product is a blend of 75 percent saponified lanolin with 25 percent white bentonite added to prevent caking. According to the manufacturer "Lanomal" imparts to soap all benefits of lanolizing while eliminating the difficulties previously encountered when lanolin had to be incorporated by spray process. The following is given as a typical analysis of the new lanolin soap:

	percent
Moisture	2.5
Unsaponified (lanolin alcohol)	34.0
Sodium soap	63.5

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We at Westvaco render exceptionally thorough service on alkali shipments. Incoming orders are first checked against master records and any special customer "specs" are relayed to the plant as a reminder. An organized car-inspection system checks lining, coils, fittings, etc., before each car is loaded. A "thief-sample" goes directly to the plant lab for check-analysis. Same-day notification of shipping date, car number and routing goes forward by postcard or telegram. Rush orders are expedited... cars checked from junction to junction, if necessary, by alert Traffic Men.

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CAUSTIC POTASH
45% Liquid
Flake and Solid

CAUSTIC SODA
Liquid 50%, Standard,
Low Iron and Rayon Grades
Liquid 70-73%,
Standard Low Iron Grade
Flake, Solid and Ground, 76% Na_2O

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NATURAL SODA ASH
Light and Dense

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PHILADELPHIA, PENN. • PITTSBURGH, PENN. • VANCOUVER, WASH.

(saponified lanolin fatty acids ..... 55.7% combined sodium oxide ..... 7.8%)	
Free alkali	None
pH of 5 percent aqueous solution	9.5-10.0

This saponified lanolin is crushed in a low-speed pre-grinder, micro pulverized, screened and blended with the filler. While white bentonite has been made the standard filler, ground cornmeal and walnut dust can also be used.

The resulting material is a significant improvement over the pilot plant product which has been available for the past two years, being superior in color and odor properties and of standardized 20-screen fineness. Lanolin soap, which is a free flowing anhydrous, grayish-white powder, is claimed to exhibit better physical properties than soap to which lanolin has been added. Requirements and specifications laid down for chemical properties of lanolized powdered soap are met if "Lanomal" is added at the recommended rate of five to seven percent of the soap formula. The material is said to stand up well under all shipping conditions and in storage. Its use is claimed to yield economies in time, labor and equipment.

Esters of Nopol

. . . their soap perfuming possibilities especially nopyl acetate

By Burton T. Bush
Dow Chemical Company

ONE of the more interesting newer aromatic chemicals with possibilities in compounding soap perfumes is an ester of nopol now being offered commercially under the trade name, "Citroviol." This is the acetic acid ester of nopol, a synthetic bicyclic primary alcohol derived from beta pinene and discovered by Dr. J. P. Bain and his associates in the research laboratories of The Glidden Company at Jacksonville, Florida, where turpentine is the basic material. It marks another promising step in aromatic synthesis with roots in the American pine forests.

Nopol and its esters are covered by the following patents and articles:

No. 1—Journal of the American Chemical Society No. 68,638—1946.
No. 2—U. S. Patent No. 2453110—November 1948.
No. 3—Glidden Co. Naval Stores Division—unpublished works.
No. 4—Journal of the American Chemical Society No. 733,124—1950.
No. 5—Journal of the American Chemical Society No. 732,368—1951.
No. 6—U. S. Patent No. 2424960—August 5, 1947.
No. 7—U. S. Patent No. 2427345—September 16, 1947.
No. 8—U. S. Patent No. 2428352—October 7, 1947.
No. 9—U. S. Patent No. 2427343—September 16, 1947.
No. 10—U. S. Patent No. 2427344—September 16, 1947.
No. 11—U. S. Patent No. 2340294—February 1, 1944.
No. 12—U. S. Patent No. 2537638—January 9, 1951.

The various esters of nopol show an interesting range of odors and flavors depending, of course, on the anhydrides or acids used, as well as the procedure employed, but as of this time nopyl acetate is one of the first of these esters to find a receptive market in the soap industry due principally to its odor resembling that of linalyl acetate, but with a more full bodied, natural characteristic seldom found in a synthetic chemical.

Physical Properties:

Color—a practically colorless liquid.
Formula—$C_{13}H_{20}O_2$
Molecular weight—208.3
Boiling point—approx. 115° at 10 ml. Hg.
Specific gravity at 25/25°C.—0.979-0.982
Refractive index at 25°—1.470
Flash point—245°F.
Assay by saponification, minus minim. 97.0%
Solubility, 25°C.
95% alcohol—soluble all proportions
70% alcohol—19.5%
Propylene glycol— about 12%
Glycerine—less than 0.2%
Mineral oil—soluble all proportions
Water—practically insoluble
Diethyl phthalate—soluble all proportions
Freely soluble in chloroform, ether, benzene, acetone, methanol, etc.

Use Information:

Tests with nopyl acetate alone at one percent in a bar soap showed greater stability than a comparable test with linalyl acetate. After one year the nopyl acetate note was easily discernible and no discoloration was apparent. Other tests indicate that a soap perfume compound containing as much as 50 to 60 per cent nopyl acetate does not break away from its originality and the quality of its odor is clearly noticeable in the suds of the soap.

Replacement:

Two typical lavender formulations that were identical excepting that the linalyl acetate (35%) in one was replaced by nopyl acetate (35%) in the other showed that odorwise the nopol ester was preferred.

In a substitute bergamot formulation, nopyl acetate was used to the extent of 20 per cent and by careful comparison, it was preferred over one containing an equal amount of linalyl acetate. In making numerous tests using nopyl acetate as a modifier, it was found that due to its special odor characteristic, as well as its affinity for odor assimilation, the floral as well as the woody types of compounds are often enriched by the addition of from 3 to 10 per cent.

Numerous tests have been made with nopyl acetate in various perfume formulations and from results it would seem that the nopol ester will, one day, find its place in the list of standard aromatics due principally to its versatility. Nopyl acetate is being produced by the Aromatics Division of the Dow Chemical Company which has acquired the sole right to produce and sell the esters of nopol for use in the aromatic field.

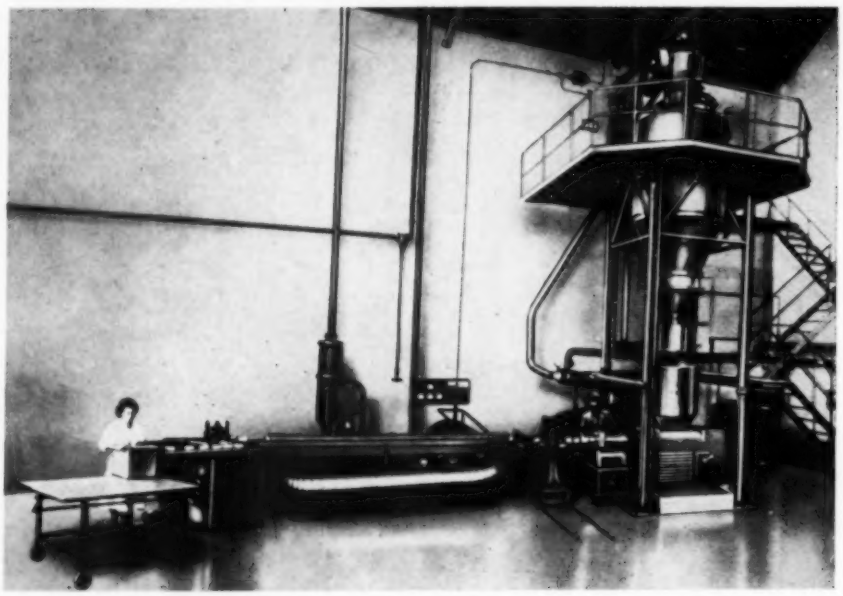
—— • ——

A.P.H.A. Meets Nov. 9-13

The 81st annual meeting of the American Public Health Assn. will be held in New York from Nov. 9 to 13, it was announced recently.

MAZZONI
Continuous Soap Plants

save time, labor, steam, power, plant space



View of MAZZONI automatic vacuum soap equipment with a capacity of one ton of household soap per hour.

Advantages of the MAZZONI Process:

- Small plant space; only one operator needed.
- Saves 70% in steam, 50% labor, 40% electric power.
- Operates at low temperature, avoiding deterioration of soap.
- Vacuum process gives better toilet soaps. Deodorizing effect reduces perfume needs. Smoother, grit-free cakes which wash off evenly. Improved lathering. Automatic perfuming device included.
- Laundry soaps, pure or filled, ready for pressing and immediate packing without slabbing, cutting, etc.
- Suitable for adaptation in any soap factory, — a compact, low-cost vacuum process, continuous from neat soap to pressing and wrapping.
- Plants for outputs of half-ton, one ton, or two tons per hour.

For further detailed information, write to

G. MAZZONI, S. p. A.

Busto Arsizio, (Varese) Italy

Cable address: Cosmazzoni, Busto Arsizio

New Lightweight Tube

A plastic tube that is said to weigh only a third as much as lead containers has recently been introduced by Wallace Container Co., Los Angeles. The product, developed from a special B. F. Goodrich chemical plastic, can be used for packaging shaving creams, toothpaste, lotions, and other materials. The tube can be made transparent.

Committee D-12 Proceedings

The proceedings of the annual meeting of Committee D-12 on Soaps and Other Detergents, held March 17, at the Park Sheraton Hotel, New York, was published recently by the American Society for Testing Materials.

ASTM Publications

The symposium on statistical methods for the detergent laboratories, presented at a meeting of Committee D-12 on Soap and Other Detergents, March 18, 1952, was published recently by the American Society for Testing Materials as a 44-page, paper bound booklet, costing $1.25. It contains the following papers: "Graphical Methods of Statistical Analysis and Tests for Significance" by P. S. Schmidt; "Design of Laboratory Control of Laundry Washrooms Based on an Analysis of Varian" by George S. Freeman and Morris L. Cohn; and "Importance of Correlations in Detergency Testing" by Joseph M. Lambert and Edward J. Leshan.

Bulletin on Fibre Brooms

A new bulletin on Perfex fibre brooms and brushes, giving illustrations, descriptions and information on use, has recently been issued by Brooklyn Fibre Broom Co., Brooklyn. Copies are available on request to the company at 47 Dinsmore Place, Brooklyn 8, N. Y.

Filling Machine Folder

A new illustrated "Bulletin 4692" describing its complete line of filling machines has recently been issued by Stokes and Smith Co., a subsidiary of Food Machinery and Chemical Corp., Philadelphia. Detailed data is furnished on all Stokes and Smith fillers and their numerous combinations for handling everything from pastes and granular products to powders. Copies of "Bulletin 4962", are available on request to the company at 4962 Summerdale Ave., Philadelphia.

Floor Resurfacing Brochure

A new brochure describing mastic floor resurfacing has recently been published by United Laboratories, Inc., Cleveland. The two-color bulletin explains in detail all the proportions for mixing along with ingredients specified for certain jobs. Given in the brochure are some of the advantages of such materials along with suggested uses. ULI mastics are used both as a new surfacing over cold concrete or wood floors as well as an underlayment for leveling floors to the application of tile, linoleum, etc. The material is claimed to withstand heavy loads inside or out. This brochure is available by writing to the company at 16801 Euclid Ave., Cleveland.

Imports Italian Pumice

Whittaker, Clark & Daniels Inc., New York, recently announced that it now imports specially selected crude pumice from Italy for grinding and processing at its new plant in South Kearny, N. J. The company recently sold its pumice operations at Grants, New Mexico operated by its subsidiary, Pumice Corp. of America. Whittaker's resident agent at Lipari, Italy inspects and ships the pumice.

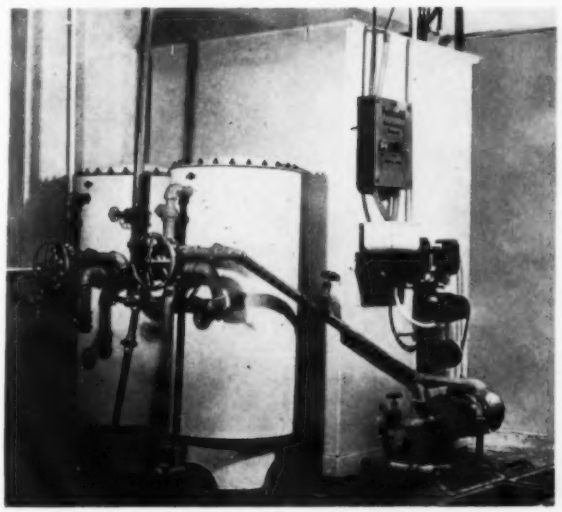
Columbia Pittchlor Booklet

A new 24-page, two-color illustrated brochure outlining the uses of Pittchlor for water, sewage treatment, and general sanitation purposes has recently been issued by Columbia-Southern Chemical Corp., subsidiary of Pittsburgh Plate Glass Co., Pittsburgh. The booklet outlines the advantages that Pittchlor offers to municipalities and also carries tables of solution strengths for a wide range of applications. Copies may be had on request to the company at 420 Fort Duquesne Blvd., Pittsburgh.

New Tergitol NPX

Tergitol dispersant NPX, a non-ionic surface-active agent with detergent, dispersing, and emulsifying properties, is described in a new six-page technical information sheet recently released by Carbide and Carbon Chemicals Co., a division of Union Carbide and Carbon Corp., New York. The bulletin includes information on physical properties, shipping data, solubility characteristics, wetting power, stability and compatibility, physiological action, and applications. Several suggested formulations are given.

Tergitol NPX is designed for the formulation of detergents and cleaners, textile specialties, insecticides and herbicide concentrates, metal cleaners, and other specialty products. It is also finding application in textile processing, particularly in scouring and wetting operations and in leather



New "Permutit Package Water Conditioning Plant," introduced recently by Permutit Co., New York, is a self-contained unit which is available in eight standard sizes ranging from 500 to 3,300 gallons per minute and flows of 12,000 to 79,000 gallons per 24 hours. Plant consists of a precipitator with a built-in clearwell, a proportioning chemical feeder control, a coagulant feeder tank, a lime or soda ash and hypochlorite feeder tank, an inlet float control valve, neutralite filter unit.

lady, make up your mind
It's a big decision . . . scientific "soap" has the lady in hot water. Which one is milder, more economical, safer, more effective? What'll it be—soap or synthetic detergent? Where'll she use it—dishes, laundering or general cleaning? One thing is sure, she'll get a good product whatever she buys.
There are bigger decisions to be made when you manufacture soap and synthetics. One concerns the purchasing of chemical raw materials. For quality and dependability, you'll find Mathieson *an outstanding source of chemicals* essential to soap manufacture and other chemical process industries.
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processing for backwetting, deliming, and degreasing. Copies of this new technical bulletin are available from the company at 30 East 42nd St., New York.

D & O Offers "Dolcourin"

A new product, known as "Dolcourin," which was developed as a replacement for coumarin, was introduced recently by Dodge & Olcott, Inc., New York. The new product contains no coumarin or coumarin derivatives, yet may be used in any formula where coumarin or tonka is used as a partial or complete replacement. "Dolcourin" is said to be high in fixative value and approximately equal in flavor strength and tonal quality to coumarin. The new product is offered in one pound trial bottles at the regular 25 pound price of $2.50 per pound.

Walmsley in New Post

Appointment of John T. Walmsley as a salesman for the Chicago and midwest areas was announced recently by Hooker Electrochemical Co., Niagara Falls, N. Y. His headquarters are at One North LaSalle St., Chicago. Mr. Walmsley has been with the company since 1950, first as a chemical engineer in the process study group at the Niagara Falls plant and later as assistant sales engineer at Tacoma, Wash. Since June 1952 he has been in the Niagara Falls sales office.

Owens Consolidates PR

All publicity operations have been consolidated into a single unit within the public relations department, it was announced recently by Owens-Illinois Glass Co., Toledo. At the same time, the company announced that Joseph M. McGarry, as press relations manager, is supervising the preparation and release of all publicity, and is responsible to E. D. Dodd, public relations director. Kenneth A. Hamel, as product publicity manager, is in charge of the product publicity of all operating units of the firm. Before joining Owens-Illinois in 1951, Mr. McGarry was press representative for Curtis Publishing Co., Philadelphia. Prior to that he was a reporter and Washington correspondent for the *Philadelphia Evening Bulletin*. Mr. Hamel has been with the glass company since 1944 and was publicity manager of the glass container division's market development department. He was formerly a reporter on the *Toledo Blade* and on the *Toledo News-Bee*.

Braun Forms Subsidiary

A new subsidiary company has been formed to oversee manufacturing and marketing details of a new line of polyethylene "squeeze bottles," it was announced recently by W. Braun Co., Chicago. The subsidiary, known as Plasticrafters, Inc., has its headquarters in the firm's main offices at 300 North Canal St., Chicago; sales offices are maintained at St. Paul, Detroit, and at New York, where export activities are also handled.

Better Cosmetic Testing

Glamorous packages, alluring fragrances and foamy textures are playing too large a part in guiding the consumer's choice of cosmetic products, Dr. D. H. Powers of Warner-Hudnut, Inc., New York, told the Lackawanna, N. J., subsection of the American Chemical Society recently.

The lack of good "yardsticks" for measuring the actual performance of cosmetic products is probably the chief reason for this, declared Dr. Powers, who called for the development of scientific test methods for evaluating shampoos, hair waving lotions, deodorants, skin creams and hair growth stimulants.

A new, portable, electrically - driven insecticidal fog applicator especially designed for indoor use has recently been introduced by Todd Shipyards Corp., Elmhurst, N. Y. The new unit, designated "TIFA 15 M," runs on any 110 volt AC outlet. It converts liquid solutions into a fog-like emission which is claimed to kill insects on contact.

Letters . . .

(*From Page* 33)

mild acids such as citric acid. It does not, however, apply to the mineral acids, e.g., hydrochloric and sulfuric acid, mentioned in my article. As such, the patent need not concern prospective manufacturers.

The second patent is Russian Patent 58,982 issued Jan. 31, 1941 to G. I. Arbuzov, (see Chemical Abstracts, *39*, 877 (1945). This patent covers the use of thiourea and *any* acid to dissolve silver sulfide. The tarnish on silverware is composed of silver sulfide. Since no requirements are placed on the acid constituent of the mixture, then all silver dips which contain thiourea and an acid fall under its scope. However, the patent is valid only in Russia. It is apparent that the recently-issued U. S. patent conflicts with the Russian patent since it fails to disclose anything which is "new or novel."

While I have written this letter for the information of your readers, they should realize that the conclusions which I have drawn represent only my opinion on the subject, and do not serve as a warranty.

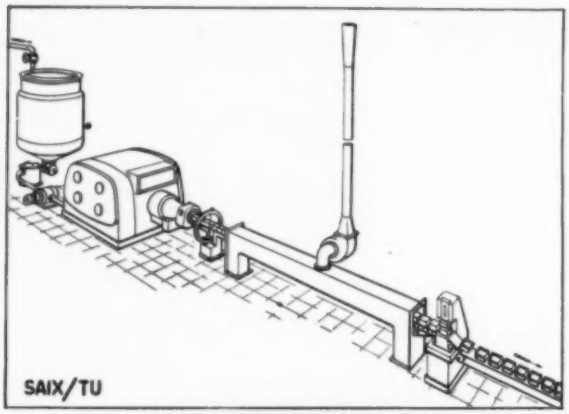
HOWARD BRENNER
Silvel Products Co.
Brooklyn, N. Y.

MECCANICHE MODERNE

CORSO SEMPIONE, 51 — BUSTO ARSIZIO — ITALY

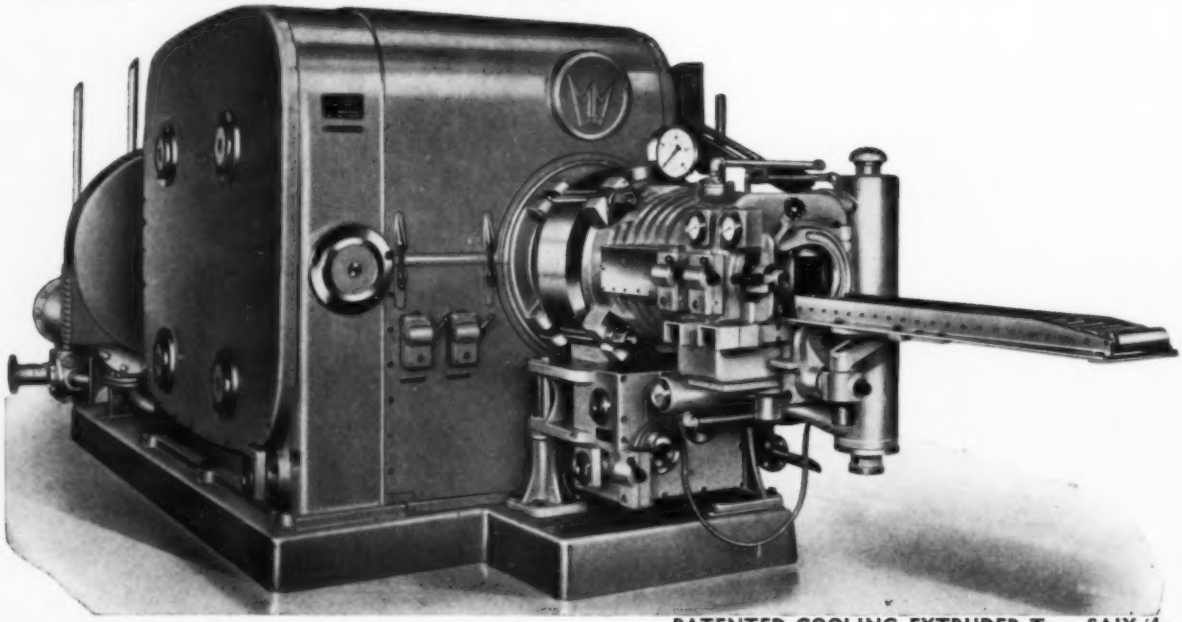
PATENTED cooling Plant SAIX for the continuous chilling and finishing of every type of laundry soap product (i.e. soaps with 62%, 52% or lower F.A. content) starting from a neat soap made by the conventional boiling practice or by continuous saponification.

The plant in a single and rapid operation, without intermediary stages or changes in the neat soap characteristics, produces finished soap pieces (cold solid state) starting from neat soap (hot liquid state).



SAIX/TU

The plant complete with a preliminary evaporator of the liquid soap, may produce partially dried soap at the desired fatty acid content. The partially dried soap may be obtained with an opaque, translucent or transparent appearance either in form of pieces of the desired shape and weight or in form of ribbons.



PATENTED COOLING EXTRUDER Type SAIX/4c

PRODUCTION Clinic

By E. G. Thomssen, Ph.D.

MANY persons dealing with production problems have experienced unhappy hours because a good piece of work accomplished by them went unnoticed. It has been said that 99 percent of us need appreciation to put forth our best efforts and the other one percent cannot get on without it. A word of commendation to production workers under our guidance for a task especially well performed is appreciated by them and a big help in improving morale.

The importance of recognition was forcibly impressed upon the writer recently. A laboratory worker related how he had produced a valuable new item, which brought his company a large increase in business and substantial profits. When the chemist made his discovery he told his research director about it. A patent taken out in both their names was assigned to the company in accordance with an agreement made when they joined the firm. Little or no recognition was given to the discoverer, who discussed the matter with the laboratory director, with whom he was friendly. The latter, who had suggested the line of research, conferred with the company's executives. Management, however, considered the discovery as part of the chemist's job, for which he was being paid. The director indicated to the executives that he had also played a part in the discovery. To this the executives replied that the chemist made the discovery and the director merely had supervised the work. The dissatisfaction caused by the apparent lack of appreciation resulted in both men leaving the company shortly thereafter. The two extended their research in the field of the original product discovery and found another material that was superior to and more economical to make than the original. As a result, the new product virtually captured the market. Unfortunately, lack of appreciation does not always have so happy a conclusion.

What management fears probably in extending appreciation to an employee for a job well done is that

DR. THOMSSEN

the employee may expect advancement in terms of salary or position. However, keeping in mind our present tax structure and high operating costs, the dissatisfaction among employees engendered by an apparent lack of appreciation may in the long run be more costly than adequate recognition. Since our economic structure is based on incentive and opportunity, good new ideas or products should be rewarded in keeping with their value. It does not cost much to give a sincere thank you or a friendly pat on the back when a workman has done a good piece of work. A raise in wages or position, even though it may be a small one, pays dividends, both tangible and intangible. Many manufacturers realize this and have instituted various incentive plans to attract and hold able, contented employees in all departments.

Many chemical specialties manufacturers employ women in plants as well as in offices. Those who study the attitudes of employees toward their employer have found that women, even more than men, require recognition for their efforts through some tangible form of appreciation. It has been found that awards regularly made for superior work done by female employees, result in increased production as well as far better workmanship. Care must be taken, however, not to play favorites, or the entire effort will fail.

Whatever an executive accomplishes comes about as the result of the cooperation and efforts of those carrying out his ideas and plans. The better the working relationship, the better the results. In addition, there is a deep sense of personal satisfaction arising from a harmonious, productive mutual effort.

———•———

Stair Climbing Hand Truck

A SIMPLIFICATION in the handling of loads on hand trucks up and down stairs or over curbs is possible by the use of "E-Z Climb Rocker Arms." These are made by the Automatic Bending Co., Harvey, Ill. The arms are attached to a spring-loaded axle. This causes them to perform more like additional truck wheels than skis, which is a frequently used method.

New Container Lining

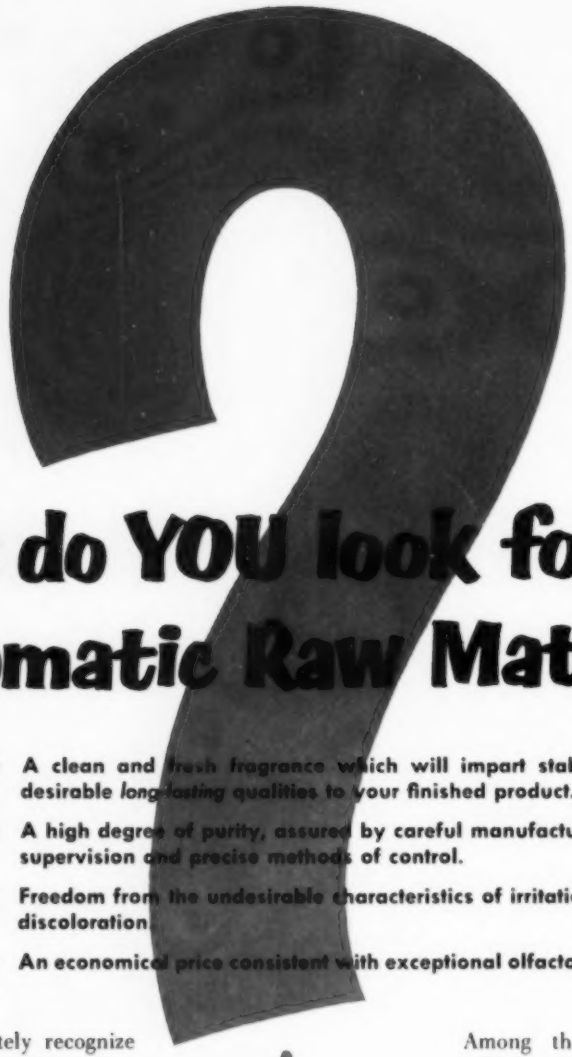
INLAND Steel Co., Chicago, Ill., has developed a new special steel container lining. This lining is being used on five gallon pails and steel drums. It resists the action of toxaphene and Inland's laboratory cooperates in testing it against the action of other products. This lining is said to be non-fragile and economical.

Light Respirator

A LIGHT weight (four ounce) respirator that gives protection against dusts and fumes is available at a low price from H. S. Cover, South Bend, Ind. The mask is made of soft rubber, is air tight, and provides for easy breathing without danger of rebreathing stale air.

New Dial Indicators

TAYLOR Instruments Co., Rochester, N. Y., have recently issued bulletin #98214 describing their latest 6" dial indicators. These indicate temperature, pressure or load applications. The temperature instruments de-



What do YOU look for in an Aromatic Raw Material

- **A clean and fresh fragrance which will impart stability and desirable *long-lasting* qualities to your finished product.**
- **A high degree of purity, assured by careful manufacturing supervision and precise methods of control.**
- **Freedom from the undesirable characteristics of irritation or discoloration.**
- **An economical price consistent with exceptional olfactory value.**

The perfumer will immediately recognize these qualities in VERONA aromatic raw materials—*elusive qualities* which long experience has enabled us to capture and pass on to the perfumer for use in building aromas for finished cosmetics, soaps, toiletries and allied preparations.

VERONA raw materials have proven themselves in countless applications—proven their value at the *point-of-sale* where customer appeal is all-important.

Among the many fine VERONA raw materials, note the following outstanding products:

CYCLAMAL VERONOL RESEDALIA FLORANOL
THE IONONES CUMIN KETONE JACINTHAL

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NATURAL ABSOLUTES ESSENTIAL OILS RESINOIDES

Write us on your Company letterhead for our complete catalog.

USE VERONA PRODUCTS TO BUILD SALES FOR *Your* PRODUCTS

AROMATICS DIVISION
VERONA CHEMICAL COMPANY

26 Verona Avenue, Newark, N. J. 208 North Wells Street, Chicago, Ill.

pend upon a variety of sensitive elements or bulbs so that proper selection may easily be made for specific applications. The bulletin is illustrated and includes mounting dimensions for the numerous types of these instruments. Copies are available.

Butyl Cellosolve

AMONG some 70-odd industrial solvents made by Carbide & Carbon Chemicals Corp., New York, butyl cellosolve is of interest to manufacturers of certain sanitary chemicals. It finds use as a mutual solvent in individual cleaners and dry cleaning soaps, and also as a diluent in brake fluids. Technical bulletin F-7862 gives full details concerning its applications.

Rapid Reading Viscometer

A VISCOMETER that simply, quickly, and easily gives viscosity determinations in centipoises is offered by Brookfield Engineering Co., Stoughton, Mass. It takes but two minutes to make a determination including cleaning up time. A variety of models is available and adaptable to a wide range of viscosities.

Acrylic Emulsions

AMERICAN Polymer Corp., Peabody, Mass., offers a series of acrylic polymers and copolymers. Their emulsions deposit clear, tough, flexible films with desirable ageing characteristics on various surfaces. The acrylic polymer solutions also deposit clear, water white films, having a range from tough hard to soft rubbery consistencies. The films are resistant to water, alkalis, acids and mineral oils. Various bulletins are available from the company.

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New Bottle Capper

A new capper that is designed to provide a fast positive seal for bottles and jars requiring screw caps of almost any size and any material was announced recently by Eyrle Co., San Francisco. Plastic caps can be applied with the new capper, which because of a weight arrangement which reduces the amount of necessary impact, reduces the possibility of breakage, according to the maker. The capper can handle any screw-type cap from 10 to 120 mm. The new machine gives a uniform degree of tightness, which can be predetermined by the size and weight on the chuck. It also requires no special installation and handles caps with equal facility on a conveyor, tray or table. Power is provided by a ¼ H.P. motor, operating on 120 v. AC. The cost is $192.50, f.o.b. San Francisco.

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Sales Clinic Proceedings

The complete proceedings of the first chemical sales clinic, held last October in New York, were published recently by the Salesmen's Association of the American Chemical Industry. The publication, a bound volume, 128 pages, includes the full texts of the prepared addresses, verbatim reports of the question-and-answer periods following each talk. Copies are priced at one dollar, and may be obtained by writing Ralph L. Ericcson, 6 East 45th St., New York.

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Tall Oil Data Collated

The Tall Oil Association, New York, recently issued a collation of its bulletins No. 1 through No. 11. These cover the period from April, 1948 to October, 1952. Technical and economic data on tall oil and its derivatives are presented for use by the industrial consumer.

New capper of Eyrle Co., San Francisco, designed for handling metal or plastic screw caps.

New Vacuum Filler Bulletin

A new bulletin describing "U. S. Model B-2" semi-automatic vacuum filler has recently been issued by U. S. Bottlers Machinery Co., Chicago. The maker says that filling with this machine is fast, accurate and easy on the operator. Designed for liquids and semi-liquids, it handles containers up to 13" high and 4⅜" in diameter. The machine can fill directly from drums. The semi-automatic vacuum filler is portable and can be plugged into any standard electrical outlet. Floor space required: 28" x 16" ; height: 62"; motor: ¼ h.p.; net weight: 285 lbs. Request for "Model B-2 Bulletin" should be sent to the company at 4015 N. Rockwell St., Chicago.

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ASTM Water Manual

Manual on Industrial Water, 1953, prepared by ASTM Committee D-19 on Industrial Water, American Society for Testing Materials, Philadelphia, Special Technical Publication No. 148. 344 pages, cloth, six by 9¼ inches, price $4.25. Eight chapters cover the following subjects: uses of industrial water; difficulties caused by water in industry; composition of industrial water and water-formed deposits; treatment of industrial water; sampling of industrial water; analysis

Quick-Change artist

VERSATILITY is a big feature of your TRIANGLE Weigher and Sealer

Quickly changes your packaging costs, too — *substantially lower*

Here's the Triangle Model SH Net Weigher and SA Sealer that handles such a wide variety of filling jobs so efficiently and so economically.

Its versatility means you can fill all types of dry soap products, insecticides, cleansers, household chemicals, fertilizers, and the like. You can fill into a wide variety of packages and a wide range of sizes — with quick changeover.

Guaranteed Accuracy

This machine features *guaranteed* accuracy on weights . . . and speedy filling and sealing of containers. Users report *cost savings of several thousand dollars per year.* They say the equipment quickly pays for itself.

Yes, sir. This is a quick change artist you'll applaud. Better take a look at it soon.

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of industrial water; sampling and identification of water-formed deposits; and analysis of water-formed deposits. Also included are the various standard definitions, sampling methods, analytical methods, etc. which have been standardized by the society through the work of committee D-19. The book is intended as a reference source of information for three types of users: executives and plant engineers; individuals engaged in industrial operations involving the use of water; and analysts, operators of special instruments, engineers, and consultants.

Corrosion-Resistant Tubing

High resistance to corrosion by organic and inorganic acids, alkalies, alcohol, etc., is claimed for "Boltaron 6200", a non-plasticized rigid polyvinyl chloride, recently introduced by H. N. Hartwell & Son, Inc., Boston, Mass. This thermoplastic material is said to possess good impact strength and abrasion resistance, and to be a non-conductor, thus eliminating electrolysis problems. It is suitable for industrial tubing, pipe fittings, and similar uses. Data sheets are available for more detailed information.

N-Vinyl-2-pyrrolidone

N-Vinyl-2-pyrrolidone is now available from high pressure acetylene reactions and is being offered in drum lots by General Aniline & Film Corp., New York, it was announced recently by Dr. Jesse Werner, director of commercial development. The compound is of interest in copolymerization reactions with acrylic acid, acrylonitrile, styrene, and other vinyl monomers.

MCA Issues Facts Book

"The Chemical Industry", a collection of current facts and information about it, was published recently by the Manufacturing Chemists' Association, Inc., Washington, D. C. This 108-page paper covered booklet traces in words, graphs, and figures the growth of the chemical industry in the United States, how it operates, and the part it plays in all aspects of everyday life. A list of recommended reading supplements the wealth of data given in the text. The publication sells for $1.00.

Products and PROCESSES

Cold-Water Soap

A soap suitable for use with cold water, especially for shaving, consists of at least two separate juxtaposed pieces of soap, each containing a chemical reagent. The two reagents are to be of different chemical nature, and such that they react exothermically one on the other upon contact by means of washing water. The pairs of reagents may comprise a base with an acid, such as soda or potash and sulphuric acid, bromine with iodine and a bromide or an iodide with chlorine. The soap cake may consist of several alternate layers of the two treated soaps, or the two soaps may be cut into small pieces, recombined and moulded into heterogeneous cakes, the surface of which is a mosaic. The two soaps may be separated by a piece of untreated soap to prevent the reaction taking place before use in water. The two soaps may be combined cylindrically, with or without a neutral layer between them, particularly for making shaving sticks. The soaps are the usual soda, potash and ammonia soaps. British patent 643,493, R.J.B. Elissabide.

Detergents from Cork

Organic substances which can be combined with organic or inorganic bases to give detergent, emulsifying, and foaming agents are isolated by hot or cold alk. hydrolysis of powdered cork in water or in an organic solvent, e.g. alcohol, followed by separation of the salts from the cork residue either by physical methods or by acid precipitation and extension with CHC_3. The solvent is evaporated before addition of the base. French patent 876,891, Georges Delaville and Maurice Delaville, through *Chem. Abstracts*, volume 47, No. 10, page 5146.

Design in Soap Bars

A soap bar made by extrusion has a continuous soluble design of indented cross-section extending through it. The part constituting the design may be of soap or of some other material which dissolves at the same rate as soap. British patent 642,711, J. Garvey.

A soap bar having a helical grain is formed by a screw extrusion process. British patent 642,712, J. Garvey, A. Garvey and J. M. Garvey.

Reagent for Moisture

Rapid determination of small amounts of water by simple volumetric procedure is the function of "Mois-Tec" reagent, introduced recently by R. P. Cargille Laboratories, Inc., New York. It is recommended for use in the laboratory, and in the plant for control in the processing of vegetable oils, fats, waxes, polyglycols and derivatives, and other materials.

Iodine Value in Soapstock

Acidulated coconut oil soapstock may have an iodine value as much as 100 percent in excess of that of the corresponding refined oil without any contamination being involved, according to experimental results reported by S. R. Kuber and Wales H. Newby in the *Journal of the American Oil Chemists Society*, June 1953, page 246. The spread between any given soapstock and oil apparently depends on the free fatty acid content of the original crude oil and the relative efficiency of the refining process. Relation between free fatty acid content and iodine value spread in standard laboratory refining tests can be represented by the formula I.V. spread $=9.5-.759$ FFA. Efficiency of the refining process affects results insofar as it reduces the entrainment of neutral oil. Removal of all neutral oil from four laboratory-produced soapstocks prior to acidulation raised the iodine value approximately two units in all cases.

The practical significance of these findings amounts to this: A refiner processing high grade crude coconut oil of 9.5 iodine value by an efficient refining procedure cannot be expected to produce an acidulated soapstock of less than about 18.0 in iodine value. With higher free fatty acid crude oil and less efficient refining, lower iodine values are possible. But because soapstock is of minor economic value compared with refined oil, the trend will be toward better grade crude oils and more efficient refining processes.

The results obtained on coconut oil are not applicable to soapstocks from other oils. Soapstocks of cottonseed and peanut oils, for instance, are almost invariably lower in iodine value than the corresponding refined oil, often by several units.

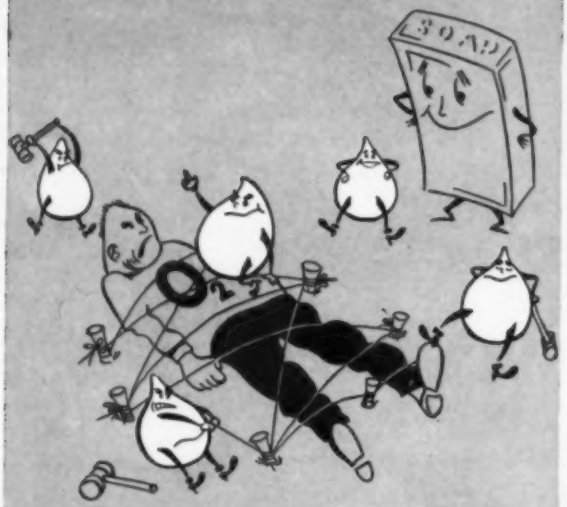
Magnesia Insulation

Wherever uninsulated equipment operates at a temperature above approximately 140°F, heat "leakage" into the working area becomes a source of discomfort to the operating personnel, according to the Magnesia Insulation Manufacturers Association, which quotes the following example of what may be achieved by thermal insulation: A stack, 12 feet in diameter and more than 130 feet high inside the plant, represented a surface of some 5,000 square feet, generally at about 260°F. To insulate the stack, 2½ inch thick blocks of 85 percent magnesia were wired into place. Two ¼-inch coats of asbestos insulating and asbestos hard finished cement were then troweled on and the insulation finished with a pasted jacket of eight-ounce canvas. This insulation is claimed to have a surface temperature of about 25°F above the ambient air temperature, and ceases to be a source of discomfort.

New Perfumer Members

The following applicants were elected to membership in the American Society of Perfumers at the association's recent quarterly business meeting in New York: Arnold Beller, Centflor Mfg. Co.; Stephen G. Capkovitz, Colgate-Palmolive-Peet Co.; August F. Schwindeman, Dodge & Olcott, Inc.; William A. Berhard, Pierre L. Bouillette, Alexander Javanovich, and Michael Lazorchak, Jr., of Givaudan Corp.; Herbert Perry, Perry Brothers, Inc., and Herbert Sommer, Prince Matchabelli, Inc.

how to inhibit oxidation....



...Versene®

VERSENE KEEPS WHITE SOAPS WHITE

.03% dry Versene or 0.1% Versene (34% solution) added to soap and soap products will make them *definitely* better. Versene inhibits oxidation, rancidity, chalking and color-deepening. It inactivates the contaminating trace metal impurities usually present in raw processing materials. Its powerful chelating action prevents these contaminants from spoiling your process or product by chemically changing their character and rendering them harmless.

VERSENES' COMPLEXING POWER GUARANTEED

Exceptionally stable at high temperatures and throughout the pH range, the complexing (chelating) power of the Versenes is guaranteed in either sample or carload lots. Versene is made only under processes originated, developed and patented by F. C. Bersworth. Available in liquid or powdered form, Versene can make your soap product or cleaning compound better. Investigate now. Write Dept. C for technical data and sample. Chemical Counsel available.

VERSENE WATER TEST KIT. Tells Total Hardness in 2 minutes. Accurate to 1 grain per gal. Versenate Method. Complete with instructions $5.00 Postpaid.

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Providence Agent: George Mann & Co., Inc., 251 Fox Point Boulevard, Providence, R. I.
Midwest Agent: Kraft Chemical Co., Inc., 917 W. 18th Street, Chicago
Wasatch Chemical Co., Salt Lake City, Utah
Southwest Agents: Barada & Page, Inc., Dallas, Houston, Kansas City, etc.
Chas. S. Tanner Co., 1815 Liberty Life Bldg., Charlotte, North Carolina
W. Coast Agents: Braun-Knecht-Heimann Co., San Francisco, Calif.
Van Waters & Rogers, Inc., Seattle, Wash. & Portland, Ore.
Braun Corp., Los Angeles, Calif.
Siegel Chemical Co. — Brooklyn, N. Y.

NEW!

high-active synthetic **DETERGENTS**

UDET

PEAK PERFORMANCE

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U D E T

NEW Patents

The information below is furnished by patent law offices of

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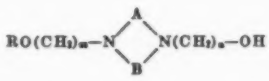
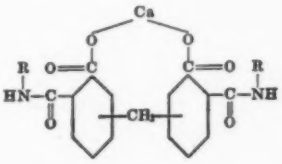
The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. $1.00 for Canada. They will be pleased to give you free preliminary patent advice.

No. 2,634,239. Detergent Composition, patented by John David Malkemus, Allendale, N. J., assignor to Colgate-Palmolive-Peet Company, Jersey City, N. J., a corporation of Delaware. A detergent composition is described comprising essentially a water-soluble soap represented by the structural formula: RCOOM, where R is an alkyl radical containing from about 8 to about 20 carbon atoms and M is a monovalent radical selected from the class consisting of alkali metal, ammonium and substituted ammonia groups, and an amount of a piperazine derivative equivalent to about 5 per cent to about 75 per cent by weight of the total composition, said piperazine derivative being represented by the structural formula:



where R is a member of the group consisting of alkyl and acyl radicals having about 5 to about 23 carbon atoms. A and B are members of the group consisting of an ethylene radical and alkyl derivatives thereof wherein any number of hydrogens in the ethylene radical are replaced by alkyl radicals of not more than 2 carbon atoms, and m and n are integers of 2 to about 5.

No. 2,636,839. Insecticidal Compositions, patented by Herschel G. Smith, Wallingford, Mark L. Hill, Boothwyn, and Troy L. Cantrell, Lansdowne, Pa., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania. The patent covers an insecticidal composition comprising at least one insecticide toxicant, a solvent therefor, and a condensation product of formaldehyde and a substantially neutral calcium salt of an N-alkyl phthtalamidic acid, said condensation product having the following formula:



wherein R is an alkyl group having from 8 to 20 carbon atoms.

No. 2,634,240. Alkyl Aryl Sulfonate Detergent Composition, patented by Jere C. Showalter, Baytown, and Albert J. Shmidl, Houston, Tex., assignors, by mesne assignments, to Standard Oil Development Company, Elizabeth, N. J., a corporation of Delaware. A composition adapted for use as a detergent is described, which consists of from 10 to 60 weight per cent of alkali metal salts of xylene sulfonic acids, from 4 to 35 weight per cent of alkali metal salts of alkyl aryl sulfonic acids having from 9 to 16 carbon atoms in the alkyl side chain, and from 30 to 60 weight per cent of a water soluble inorganic alkali metal salt.

No. 2,636,008. Detergent Package and Method of Making Same, patented by Delbert F. Jurgensen, Jr., Tuckahoe, N. Y., John A. Abbott, Jr., Ridgefield, N. J., and Charles Arelt, Richmond Hill, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey. The patent covers a detergent package which is suitable for a single washing and comprises a tubular wrapper readily disintegrable in water during washing; a quantity of detergent particles filling said wrapper; an end closure on said tubular wrapper, said end closure comprising spaced fluted sealed folds resembling the fluted appearance of a bomb-tail; and a fusible binder mixed with said detergent particles and fused along the inside of said fluted folds to form a seal whereby sprinkling of the detergent particles from the wrapper will be prevented and the wrapper and said binder will be readily disintegrated in water to release the detergent particles during washing.

The process is covered of manufacturing detergent packages readily disintegratable in water and suitable for a single washing operation comprising forming a rod consisting of a tubular wrapper, a mixture of detergent particles, including a fusible binder enclosed within said wrapper; crimping said rod and said mixture containing said binder at substantially equidistant points along said rod; heating the crimped portions to fuse a portion of said binder therein and thereby form a firm closure; and severing the rod at said crimped portions into individual end-sealed packages.

No. 2,634,228. Dental Cream Containing Benzalkonium Halide and Sulfa Drug, patented by Joseph J. Kelly, Washington, D. C., Charles F. Morgan, Falls Church, Va., and Edward Reed Smith, Washington, D. C.; Catherine M. Kelly, administratrix of said Joseph J. Kelly, deceased. A non-toxic non-irritating therapeutic cream for the treatment of exposed dental pulp is covered, comprising from about .5 per cent to about 75 per cent of a sulfa drug, from about .015 per cent to about .025 per cent of benzalkonium halide having low tissue toxicity and a phenol coefficient in excess of unity, said compound being capable of synergistic action with the sulfa drug, and a bland unguent carrier of the water-in-oil type for binding the sulfa drug and the ammonium compound together, and causing continuing germicidal and bacteriostatic action on the pulp to which the cream is applied.

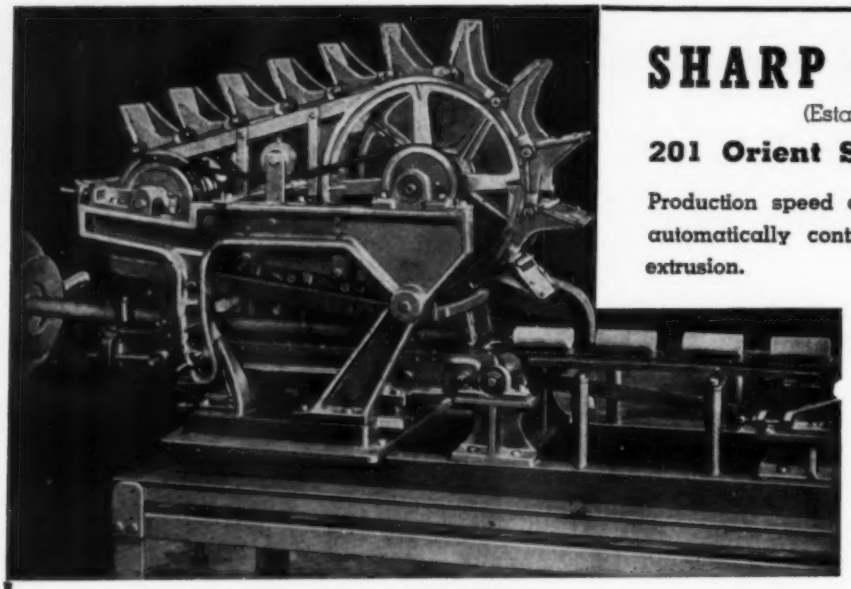
No. 2,636,815. Aquatic Herbicide, patented by Nicholas M. Molnar, New York, N. Y., and Ernest Segessemann, Woodridge, N. J. The patent covers a composition of matter suitable for killing waterweeds comprising a homogeneous mixture of about 65 parts of coal tar naphtha having specific gravity of 0.86, about 35 parts of hexachlorethane and about 5 parts of an emulsifying agent, the finished product having a specific gravity greater than 1.

No. 2,637,678. Aerosol Generating and Propelling Composition and Insecticide, patented by Kenneth C. Peer, San Francisco, and Llewellyn W. Fancher, Lafayette, Calif. An aerosol generating and propelling composition is described for use in dispersion of materials capable of being transported and dispersed in an aerosol, comprising, the following reagents in approximately the following proportions:

	Parts
Potassium nitrate	2
Sulfamic acid	1 to 1.5
Thiourea	0.5 to 1

No. 2,638,475. Spray Cooled Product and Process, patented by John Ross, Ramsey, N. J., assignor to Colgate-Palmolive-Peet Co., Jersey City, N. J. A spray-cooled organic composition is revealed comprising solid pellets made up essentially of a normally solid partial ester of a fatty acid and an aliphatic polyhydroxy alcohol and containing a minor proportionate amount of a stabilizer consisting of an hydroxy aromatic derivative compound having a single benzene nucleus and an alkyl radical having up to 5 carbon atoms, said stabilizer

(*Turn to Page* 90)



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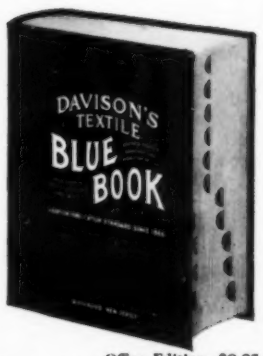

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SOAP PLANT *Observer*

By John W. McCutcheon

CONTINUOUS soap manufacturing processes have been the subject of this column for the past few months. They promise a cut in manufacturing costs, and are therefore of great interest at this time of growing competition by detergents. But economies in fatty raw materials which may be effected by the use of continuous processes are even more important to the soaper, whose margin of profit is quite narrow. Costs of builders, advertising and packaging materials for products sold at retail may be controlled through long term contracts. But the cost of the fatty raw materials is the most variable factor in the budget of the large and small manufacturer.

Obsolescence of the soap kettle is partly obscured by the current low price of tallow. But if present research into broader uses of fats and oils bears fruit, a situation will arise in which tallow for other than soap use will be in considerable demand.

Apart from the question of economies in production, the position of synthetics must be of utmost concern to the soapmaker. Detergent sales at plant have actually eclipsed soap sales on the same basis in the first quarter of this year, according to recent figures of the Association of American Soap and Glycerine Producers, Inc. The ratio of sales in the first three months of 1953 is 53 per cent for detergents to 47 per cent for soap. In 1952, about 43 per cent of the entire production of the industry was synthetics.

Will soap itself ever become an obsolete article of commerce? The preliminary 1952 report of the Tariff Commission has just been published. The accompanying table shows the 1952 data correlated with those of the past nine years. This should shed some light upon the situation. (Figures are

Table 1. Production of surface active agents

(in millions of lbs.)

	1944	1945	1946	1947	1948	1949	1950	1951	1952
Cyclic type products									
Esters and ethers, non-sulfonated	—	—	—	12	17	15	31	26	27
Products containing nitrogen non-sulfonated**	2	3	1	1	2	2	3	3	4
Sulfonated products									
Dodecylbenzene	—	—	46	55	77	147	262	315	307
Other benzenoid compounds					25	—	—	—	—
Naphthalene derivatives	11	8	7	2	2	3	4	3	6
Petroleum derivatives	30	23	37	34	42	40	63	83	84
Miscellaneous derivatives	31	42	4	8	11	18	22	29	49
Total cyclic type products	74	76	95	112	176	225	385	459	477
Acyclic type products									
Esters and ethers, non-sulfonated	—	—	12	6	9	15	20	21	37
Products containing nitrogen and non-sulfonated	1	2	3	8	18	16	28	26	37
Products containing phosphorus and non-sulfonated	—	—	—	—	—	—	.4	.6	.6
Salts of fatty acids	—	—	1	—	1	1	3	4	5
Sulfated or sulfonated products of the following									
Acids	3	2	6	3	5	4	4	4	3
Alcohols	—	—	—	—	—	—	—	—	113
Esters	8	11	17	1	1	93***	1	1	13
Nitrogen containing	9	9	11	11	15	9	13	6	4
Oils and Fats	29	43	39	39	35	40	54	44	51
All other*	28	30	58	97	93	—	169	128	—
Petroleum products	—	11	—	14	22	28	—	—	—
	78	108	147	179	199	206	293	234	264

* Including sulfated alcohols. ** Including quaternary ammonium compounds. *** Including sulfated alcohols.

[1] From Tariff Commission Reports.

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rounded off to the nearest million of pounds.)

Cyclic or aromatic type products have increased more than the acyclic group which is due principally to the enormous increase in output of the dodecylbenzene sulfonic acid type products, commonly called alkyl aryl sulfonates. But in 1952 the first decrease in the production of this material took place. The relationship between the groups is best shown graphically. Line number 1, represents total production of all surface active products on the basis of 100 per cent active material. Line number 2 represents total production of all cyclic derived materials. The space between line number 1 and 2 represents the amount of acyclic material made. Line 3 represents the total production of alkyl aryl sulfonates for use as detergent base material. A close examination of line number 3 reveals that 1946 was the first year in which the classification alkyl benzenoid sulfonate appeared. At that time no one knew exactly what type of alkyl aryl product would be most useful as a detergent, whether dodecylbenzene, nonyl toluene or decylbenzene. By 1948, however, sufficient diversity of production permitted the classification to be split and dodecylbenzene type products quickly became the most widely used retail detergent products. How rapidly and thoroughly they became established is reflected in the fact that subsequent to 1948 the classification "other benzenoid compounds" was discontinued to avoid disclosure of individual company production. In the 1952 report, the footnote in respect to the 49 million pounds of miscellaneous sulfated and sulfonated cyclic surface active agents reads:— ". . . and a small amount of sulfonated alkyl benzenoid compounds."

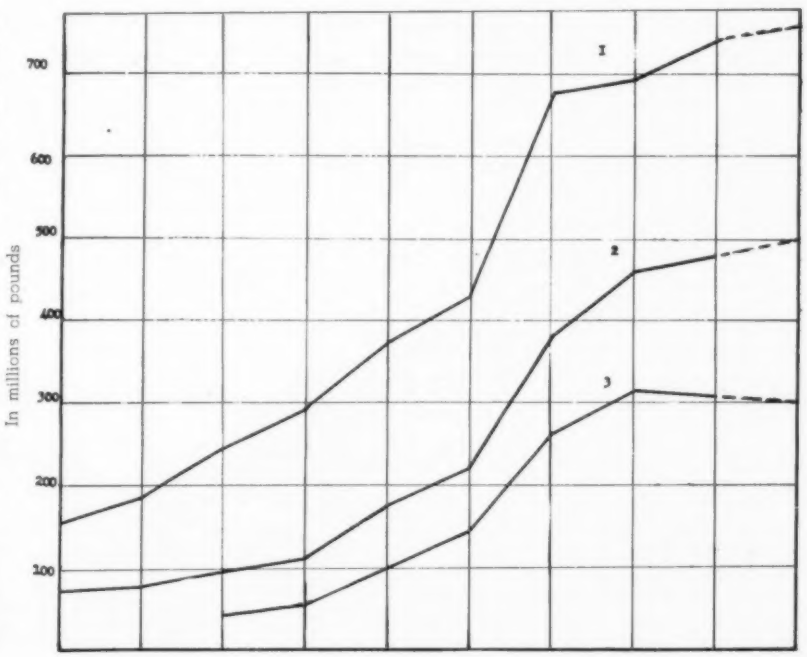
We may assume that the production of alkyl aryl derivatives other than dodecylbenzene has steadily decreased from the 25 million pounds given in 1948. Although dodecylbenzene derivatives fell off in 1952, the production of solid synthetic detergents rose in the same period from 1.22 billion pounds in 1951 to 1.48 billion pounds in 1952, or an increase of over 21 percent. Total production of surface active agents meanwhile rose from approximately 0.693 billion pounds to 0.741 billion, or approximately seven percent. We must conclude that the decrease in consumption of dodecylbenzene sodium sulfonate, represents largely an overall reduction in the percentage of active material present in the formulations due possibly to a continued shift from light duty to heavy duty products.

In connection with this analysis, we must not overlook the possible increase in the use of alcohol sulfates as a retail detergent base. Unfortunately, restricted production does not allow the Tariff Commission to make a full report on this material, except for 1952, the final year of the table. From 1944 to 1948 these sulfated alcohols were included under the classification "all others". The large jump in production in this class from 58 million in 1946 to 97 in 1947, corresponds closely to the introduction of the first heavy duty detergent on the American market bearing the alcohol sulfate as the active ingredient. We may assume that this classification consists largely of the alcohol sulfate. Fortunately the 1949 classification groups the esters and alcohols together. Since the ester group for the two years before and after 1949 is of very small value, namely one million pounds, it appears that the true figure for the alcohol sulfate in 1949 must be very close to 90 million pounds. With the definite value given in 1952 of 113 million pounds it is apparent that the production of this material has reached a fairly stable level. This shows that the alcohol sulfate has not displaced the alkyl aryl sulfonate from the retail field to any great extent, even in the face of the attractive low tallow price over the past several years. In view of the statement made in a fairly recent Dept. of Agriculture publication (Marketing of Non-drying Industrial Fats and Oils as Affected by Processing Methods,—page 8) regarding the use of tallow as a detergent material, this conclusion is most puzzling.

(*To be Continued*)

Plant Maintenance Report

The latest volume, "Techniques of Plant Maintenance—1953," containing the text of 61 papers and discussions on various aspects of maintenance and plant engineering held in Cleveland during the Plant Maintenance Show, last January, has recently been published by Clapp & Poliak, New York. The book, which contains 288 pages, 8½" x 11", is sent without charge to those who attended the conference. For others the cost is $6.00.



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New Soaps at Grocery Show

NEW SOAPS for toilet use and new household sanitation products, commonly distributed through retail food stores, received attention in displays by manufacturers at the 54th annual convention and trade show of the National Association of Retail Grocers of the U. S. at the Navy Pier, Chicago, June 14 to 18.

Lever Brothers Co., New York, made their first public showing of their improved "Lifebuoy" soap "with the medicinal odor gone for good." First announcement of the "transformed" product was made in a full color advertisement in the *Chicago Sunday Tribune* on the day the convention opened. Headline of the advertisement read "How We Cured Our Own Famous Case of B. O.," and continued to relate how Lever research has discovered a new deodorizing ingredient, "Puralin," which has made the new "Lifebuoy" "as different from the old as day from night."

Samples of the new "Lifebuoy" were distributed to convention visitors. Other familiar Lever products, including the new "Lux" liquid detergent in non-drip can, were prominent in the display. To wives of NARGUS members a mink stole, valued at $1,000, was offered in a raffle for which a drawing was made before the show closed. R. R. Doonan, director of sales and trade relations, from New York headquarters, was in charge.

Procter & Gamble Co., Cincinnati, O., made their first public presentation of a new "Camay" toilet soap with a cold cream ingredient. The new "Camay" goes on the market this month. Fourteen laundry soaps in the case goods field, several in newly redesigned containers, were displayed. Daily drawings for a "Polaroid" camera were held during the five-day show. A six-piece "Community" silver coffee and tea set was raffled off as a final grand prize. Two-ounce sample bottles of "Joy" liquid detergent were also given to all visitors. In general charge were Mark Upson, general sales manager, and E. F. Arnold, manager of group products.

Colgate - Palmolive - Peet Co., Jersey City, N. J. carried on under its old name, while marking time, it was explained, until the recently adapted new name of Colgate, Palmolive Co., becomes official. Laundry soaps, and detergents, toilet bar soaps, shampoos, cleaners and other products were shown. Visitors received a re-usable plastic bag filled with various C-P-P toilet soaps, some 4,600 samples of each product with a value of over $1, per bag, being distributed, according to J. J. LaVarre, sales supervisor, who, with J. Marshall, assistant general sales manager, directed the presentation.

Fels & Co., Philadelphia, featured a new product, "Instant Fels Naptha" soap granules for laundry washers, also "Felso" synthetic detergent and "Fels Naptha Bars." D. O. Nimocks, Chicago district sales manager, in charge.

Allen B. Wrisley Co., Chicago, showed its various lines of fine toilet soaps, which have been marketed since 1862, and featuring a family assortment in a re-usable plastic bag.

John H. Breck Co., Inc., Springfield, Mass., showed a complete line of shampoos and other hair preparations. John Taylor, special representative, health and beauty division, in charge.

Armour & Co., Chicago, allotted a portion of their booth space to "Dial" soap and shampoo and "Chiffon" laundry detergent, the rest being used for their food products. G. L. Hoerter, public relations director, in charge.

E. L. Bruce Co., Memphis, Tenn., featured a "Bruce" non-abrasive asphalt tile cleaner and a self-polishing asphalt tile wax in recently introduced easy grip bottles. The company, whose main line is hardwood flooring, has been manufacturing floor cleaners and maintenance products for 15 years and has been advertising and distributing nationally since 1945, it was learned. In charge were E. L. Fellman, vice president, household products div., H. M. Browning, sales manager, and John Fleming, assistant advertising manager.

Judson Dunaway Corp., Dover, N. H., displayed "Vanish," a toilet bowl cleaner, "Elf" drain cleaner, "Expello" moth killer, and "Bug-a-boo" moth crystals. Premiums available to dealers included cufflinks, raincoats, playing cards and oxford shoes. Russell Page, assistant sales manager, in charge.

Simonize Co., Chicago, featured "Hi-Lite" furniture polish which was placed on the market two months prior to the show. Also shown were "S A" shampoo for rugs, upholstery, walls and woodwork, floor wax, paste wax and the Simonize automotive line. Hugh Rains, advertising manager, in charge.

Gold Seal Co., Bismarck, N. D., showed "Glass Wax" in a new six ounce container, first marketed last fall, also "Wood Cream" furniture cleaner and polish, and "Snowy Bleach" for nylons, etc. for which distribution is still being expanded, according to Berdet Petersen, assistant regional sales manager, Chicago.

Bristol-Myers Co., New York, displayed "Ipana" toothpaste, "Trushay" hand lotion, "Mum" deodorant, "Vitalis" hair tonic and "Ammens" medicated talcum powder, along with various drug products sold through grocery outlets. E. Gelsthorpe, director, foodstore sales, in charge.

Wolcott Co., Hartford, Conn., centered their presentation on an oven cleaner, "Easy Off," for removing oven grease. Other products made by the two-year-old concern include two polishes, "Copper Kleen" and "Chrome Kleen," and a new glass cleaner, "Glaspray," which was introduced three months earlier, according to Joseph E. Connor, sales manager. Grand prize in a special dealer promotion for "Easy Off," now under way, is a Philco electric range.

Calgon, Inc., Pittsburgh, Pa., promoted "Thanx," a new type chlorinated detergent for electric dishwashers, which was first marketed in March. Also shown were "Calgon" and "Calgonite," detergents for household use. J. M. Carney, sales promotion manager, and J. E. Shipman, directed presentation.

S. C. Johnson & Son, Inc.,

(*Turn to Page* 145)

New Patents

(*From Page 83*)

amounting to 0.01 to 5 percent by weight of the spray cooled ester product and being uniformly distributed throughout each pellet.

No. 2,638,476. Method of Refining Oils with "Versene," patented by Edward M. James, Winchester, Mass., assignor to Lever Brothers Company, New York. A process of refining a fatty glyceride stock is revealed which comprises treating the stock with aqueous alkali solution in an amount at least sufficient to neutralize free fatty acids contained in the stock in the presence of not over 1.0 per cent of an organic amino-carboxylic acid compound selected from the group consisting of tetra alkali metal salts of ethylene diamine tetraacetic acid, tri alkali metal salts of trimethylamine tricarboxylic acid and di alkali metal salts of alkyl and aryl iminodiacetic acids to reduce refining losses, and then separating soapstock from the refined oil.

No. 2,639,259. Insecticides, patented by Richard H. Wellman, Yonkers, N. Y., and Raymond W. McNamee, Charleston, W. Va., assignors, by mesne assignments, to Union Carbide and Carbon Corp., New York. Composition for protection of a base against insects is described comprising a monobutoxy polypropylene glycol having a viscosity between 100 and 850 Saybolt Universal Seconds at 100° F., an emulsifying agent and an insecticide.

No. 2,637,676. Insecticidal Aerosol Compositions Comprising a 1,1,1,-Trichloro-2,2,-Bis (Ethoxy Methyl Phenyl) Ethane in a Chloro-Fluoromethane, patented by Louis A. Mikeska, Westfield, N. J., assignor to Standard Oil Development Co. The patent covers an insecticidal composition of superior knockdown characteristics consisting of a homogeneous liquid solution of a compound selected from the group consisting of 1,1,1,-trichloro - 2,2 - (4,4′ - diethoxy - 3,3′ - dimethyl-diphenyl)-ethane and 1,1,1-trichloro-, 2,2 - (3,3′ - diethoxy - 4,4′ - dimethyldiphenyl)-ethane in a chlorofloуromethane.

Unit Stops After-Drainage

A nozzle designed to eliminate after-drainage on to containers and prevent foaming of liquids when filling drums, has recently been introduced by Ralph N. Brodie Co., New York. The nozzle has two side discharge ports near the bottom which direct flow against the sides of the containers to control foaming. When the nozzle is retracted from the container, a sleeve automatically closes the port discharge holes preventing any after-

drainage of the liquid. The assembly is designed for use with quantity control meters which deliver a fixed quantity of liquid at a fixed rate and shut off automatically when the correct volume has been delivered.

New Trade Marks

(*From Page 65*)

pound. Filed Aug. 1, 1951 by Deep Rock Refining Co., Richmond, Va. Claims use since July 2, 1951.

Detergene—This for dry cleaning powder for rugs. Filed Jan. 12, 1952 by Von Schrader Mfg. Co., Racine, Wis. Claims use since Feb. 1941.

Hartsol—This for foaming oil shampoo. Filed Oct. 16, 1952 by Hart & Harrington, Inc., Chicago. Claims use since Feb. 28, 1952.

Whiff—This for liquid cleansing composition for porcelain toilet bowls, urinals, and the like. Filed Oct. 22, 1952 by Allied Home Products Corp., Beloit, Wis. Claims use since Aug. 22, 1952.

Jig-time — This for cleaning combs, hair brushes, and jewelry. Filed Nov. 25, 1952 by C. F. Clothier & Co., Philadelphia. Claims use since Mar. 6, 1951.

Purex—This for general cleaning preparation in liquid and dry forms having bleaching, cleaning, and disinfecting properties. Filed Dec. 20, 1952 by Purex Corp., South Gate, Calif. Claims use since Oct. 10, 1923.

NY-Rite—This for washing and strengthening nylon. Filed Dec. 23, 1952 by LeBlanc Brothers, Lafayette, La. Claims use since Nov. 10, 1952.

Insect-o-vap—This for electrically-heated volatilizers for insecticides and the like. Filed June 29, 1951 by Cardinal Chemical Corp., Philadelphia. Claims use since on or about Apr. 20, 1951.

So-Mo—This for floor and furniture polish. Filed Oct. 24, 1952 by S. C. Johnson & Son, Inc., Racine, Wis. Claims use since June 6, 1949.

Solvarom—This for detergents and soaps. Filed May 20, 1952 by Dodge & Olcott, Inc., New York. Claims use since Oct. 10, 1951.

Bleach-Ox—This for disinfectant, bleach, cleanser and deodorant. Filed June 21, 1949 by Bleach-Ox Chemical Co., Bethlehem, Pa. Claims use since 1929.

Speedup—This for cleanser and pine oil cleanser disinfectant. Filed Nov. 24, 1950 by American Stores Co., Philadelphia. Claims use since Jan. 23, 1950.

Purity Cross—This for shampoo. Filed Mar. 26, 1952 by Fairfield Laboratories, Inc., Plainfield, N. J. Claims use since Jan. 1, 1948.

Stan-Rite—This for sanitizing wall cleaner. Filed May 20, 1952 by Stanley Home Products, Inc., Westfield, Mass. Claims use since Feb. 26, 1952.

O.D.S.—This for cleaning fluid. Filed Aug. 8, 1952 by Slomons Laboratories, Inc., Long Island City, N. Y. Claims use since July 25, 1951.

Tall Story—This for hand soap. Filed Sept. 3, 1952 by Lambert Co., New York. Claims use since Aug. 14, 1952.

Easy-aid—This for silver cleaner. Filed Oct. 23, 1952 by G. N. Coughlan Co., West Orange, N. J. Claims use since Oct. 2, 1952.

Lady Wildroot—This for shampoo. Filed Jan. 2, 1953 by Wildroot Co., Buffalo, N. Y. Claims use since Jan. 11, 1952.

Stanhome—This for automobile polishes, metal polishes, etc. Filed May 19, 1950 by Stanley Home Product, Inc., Westfield, Mass. Claims use since Mar. 22, 1950.

Kleen Or—This for cleaning and polishing footwear. Filed Oct. 25, 1950 by Joseph A. Murena, New York. Claims use since Feb. 1, 1917.

Check-R-Tabs—This for water disinfectant. Filed Apr. 18, 1951 by Ralston Purina Co., St. Louis. Claims use since November 1940.

Surconit—This for mildewproofing of textile fibers and yarns. Filed Feb. 27, 1952 by Charles F. Dulken, Kearny, N. J. Claims use since Aug. 1, 1946.

Warficide—This for rodenticide. Filed Apr. 24, 1952 by d-Con Co., Chicago. Claims use since Apr. 9, 1952.

Lithocolor—This for dry, completely soluble household bleaching agent. Filed May 20, 1952 by Foote Mineral Co., Philadelphia. Claims use since Nov. 14, 1951.

Moth Jinx—This for moth proofing. Filed Oct. 1, 1952 by Claire Manufacturing Co., Chicago. Claims use since September 1949.

Big-San—This for disinfectant. Filed Oct. 23, 1952 by Hal-Pro Processing Co., Patton, Pa. Claims use since August 1951.

Sanitary Chemicals Section

Leaders...

FOR almost 40 years, leaders in the chemical specialties industry, large and small, have been active in CSMA affairs. They find that active participation in their trade association keeps them closely and promptly informed on matters of deep interest and importance. They find that exchange of views in open meetings can aid in solving many of their own individual manufacturing and testing problems. They find that the prompt and complete bulletin service of CSMA keeps them abreast of matters vital to their businesses — on what lies ahead and what is being done about it.

If you are in the field of disinfectants, deodorants, insecticides, floor waxes, polishes, soap and detergent specialties, aerosol products, or other chemical specialties, it could pay you to look into the advantages of membership in the CSMA for your firm. Can we send you further information?

H. W. Hamilton, Secretary.

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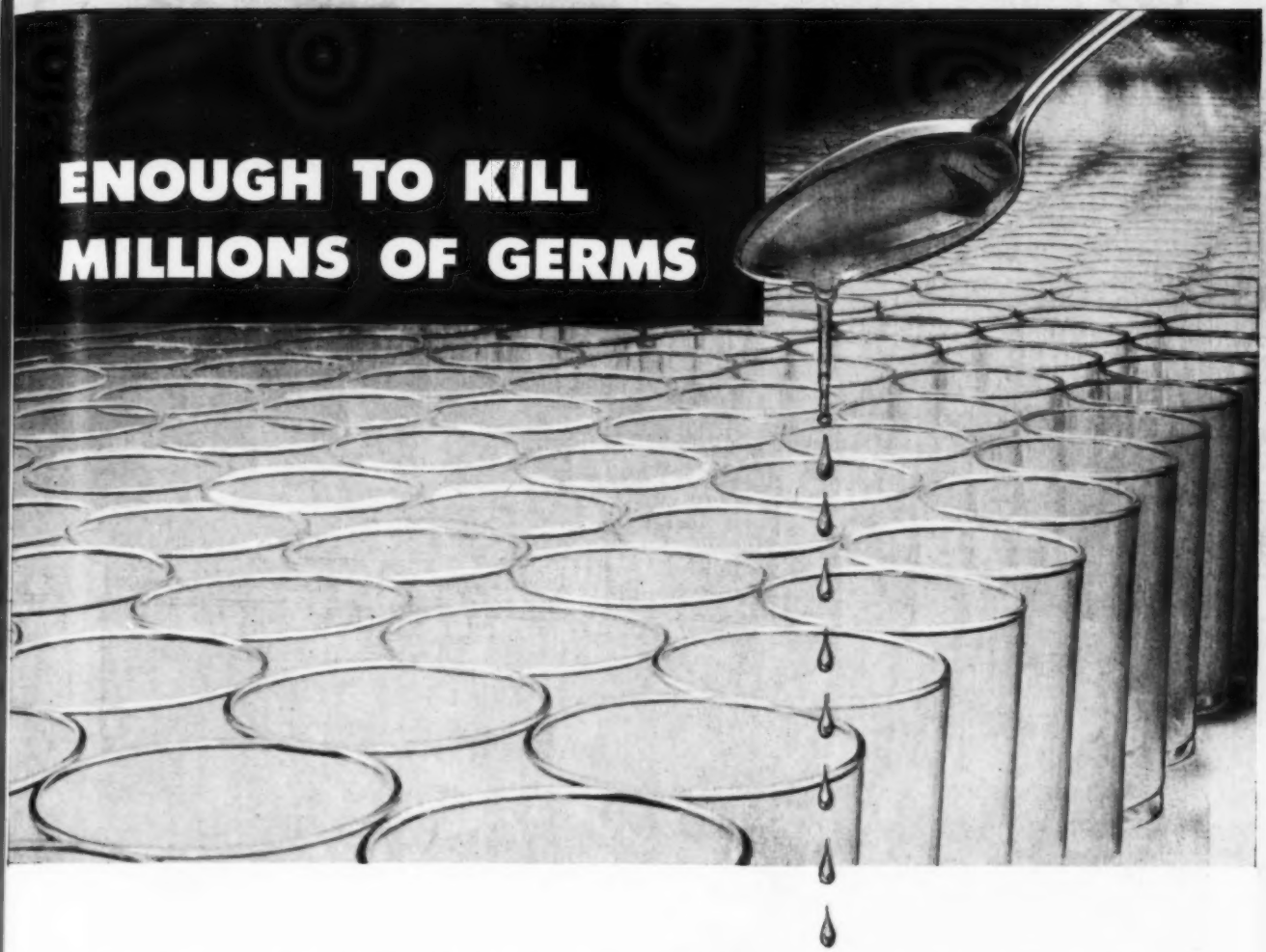

HYAMINE 2389

. . . . . only one teaspoonful of HYAMINE 2389 (50%) is enough to kill millions of germs.

HYAMINE 2389, a quaternary ammonium bactericide, is *economical* because of its low cost and germicidal potency at high dilution. Its germ killing power under adverse inhibiting conditions is outstanding.

HYAMINE 2389 in your liquid or powder sanitizers will insure repeat orders from restaurants, hospitals, janitor services, barber and beauty shops, laundries, home owners, etc. Take advantage of the *non-irritating* and *odorless* qualities of HYAMINE 2389 and please your customers.

For sanitizer repeat sales—use HYAMINE in your formulations.

HYAMINE is a trade name Reg. U.S. Pat. Off. and in principal foreign countries.

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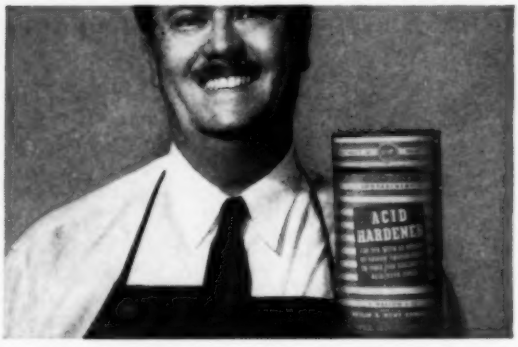
packaging news... by HARCORD

Acme Paints has attained excellent consumer recognition for their insecticide, 6% Chlordane Dust, packaged in this red, yellow and blue paper canister produced by Harcord. Response indicates stronger trade and consumer acceptance of this colorful package — a perfect eye stopper on the counter or shelf.

Dealer interest hit a new high with the repackaging by Copper Clad Products Inc. of Samae, miracle cleanser for copper ware. Harcord's scientifically designed paper canister affords moisture protection to the contents. Competitively priced packaging helps sell good merchandise.

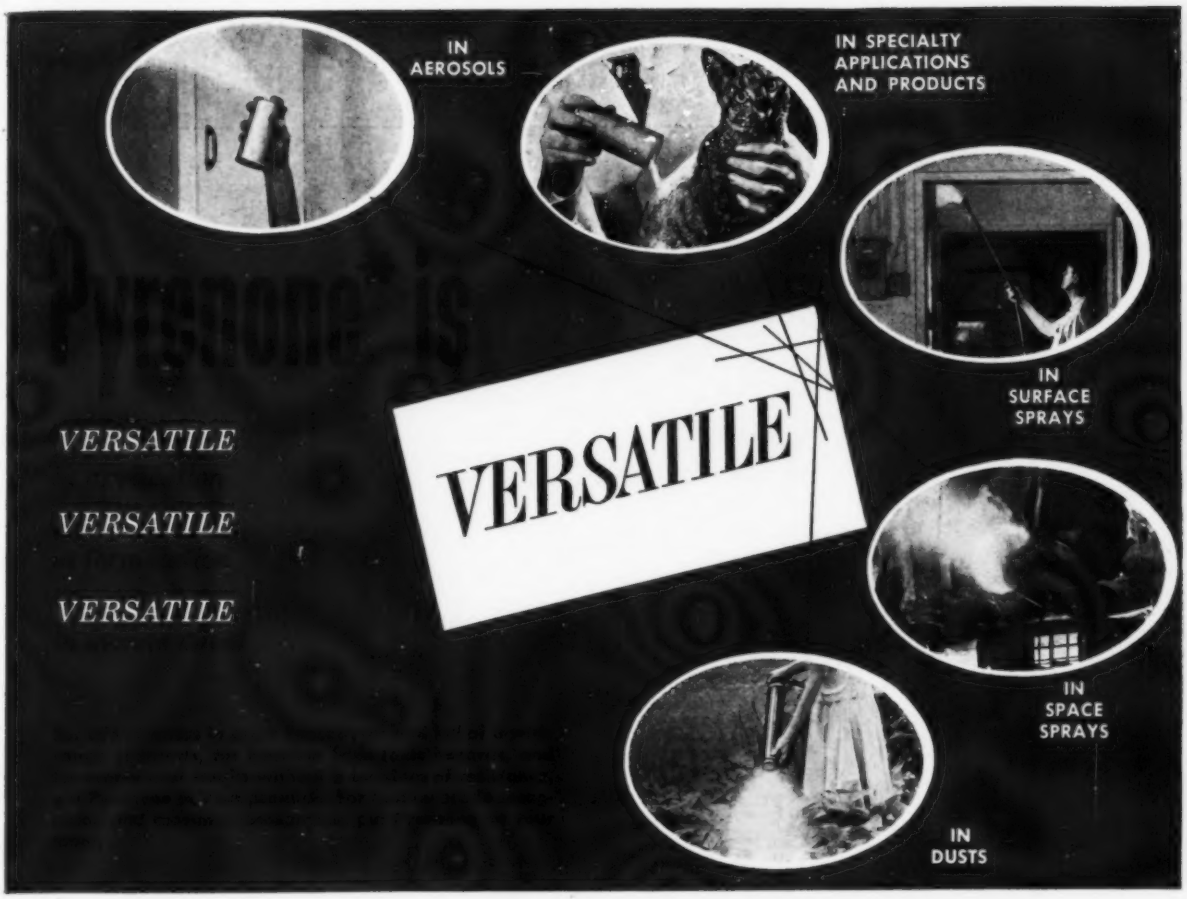


A modern and distinctive package, this grey-striped paper canister for Philip A. Hunt's Acid Hardener reflects the quality product it contains. The general customer reaction to this attractive canister, produced by Harcord, has been extremely gratifying in terms of sales.

Sypklor-50-W, an all-round insecticide popular with home gardeners over the nation, is made by U. S. Rubber Co., Naugatuck Chemical Division, and packaged in a bright yellow canister imprinted in blue. The use of paper canister packaging by Harcord has played a part in its success.

HARCORD MANUFACTURING CO., INC., *PAPER CANISTERS*

125 Monitor St., Dept. SS-7, Jersey City, N. J. – N. Y. Phone: BArclay 7-5685



FOR DAIRY FARMS:—

Pyrenone-base sprays are used on dairy cows, on buildings, in milk houses and as space sprays in barns – without toxic hazards to the animals or the milk. There are many kinds of Pyrenone concentrates available for oil sprays, wettable powders, space sprays and others, and they offer effective quick-killing action on all species of flies, gnats and mosquitoes.

IN THE HOME:—

For protection against household insects, many kinds of insecticides can be based on Pyrenone—aerosols, household sprays, dusts and specialty insecticides. Pyrenone-base insecticides are ideal for use around the home without toxic hazards for children, pets or foods.

IN THE GARDEN:—

Many leading garden sprays and dusts have been developed using Pyrenone as one of the important bug-killing ingredients. You will be glad to know that the Pyrenone in your garden dusts will not be hazardous to foods, to pets or children, or to whoever applies them.

IN AUTOMATIC SPRAYERS:—

The new automatic sprayers, in which cows spray themselves with insecticide, are ideal for fly control on dairy and livestock farms. Special Pyrenone products have been developed for this application method using a concentrated insecticide for effective killing power, but still free from toxic hazards. Developed by the Illinois Natural History Survey entomologists, the automatic sprayer method of fly control is spreading rapidly.

IN OTHER INSECTICIDES:—

You'll find Pyrenone can be formulated into practically any pest control product—in pet powders, anti-skipper compounds, in mill sprays, food plant insecticides, warehouse insecticides, treated bags and packages and many other similar uses. Whenever you need an effective insecticide for use where animals, people, food, or feed might be exposed to toxic hazards . . . REMEMBER TO CHOOSE

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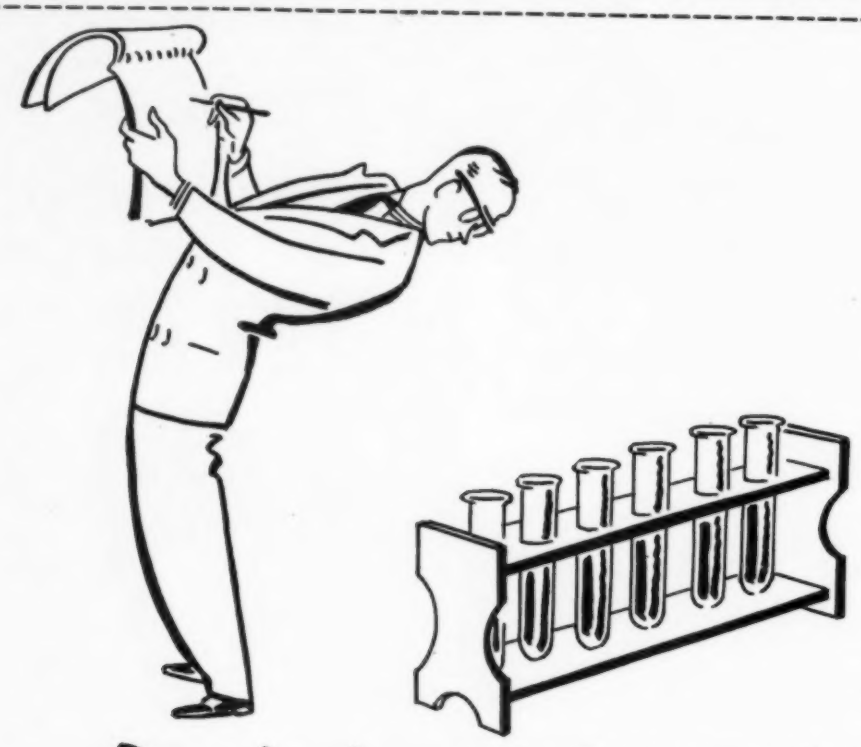
RESINS MEMO: To Manufacturers of Emulsion Waxes



Durez bends over backwards to help you improve your formulas . . .

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A TERPENE PHENOLIC, oil-soluble, high-melting, low-viscosity thermoplastic resin, widely used in the no-rub or dry-bright type of emulsion polish.

COMPATIBILITY WITH WAXES is excellent with respect to carnauba, candelilla, and beeswax, and *very good* with respect to oxidized microcrystalline.

PROPERTIES IMPARTED to the product by this resin include water resistance, hardness, improved gloss, and some slip resistance. In addition to improved properties, inclusion of the resin in the formula effects a saving in raw material cost.

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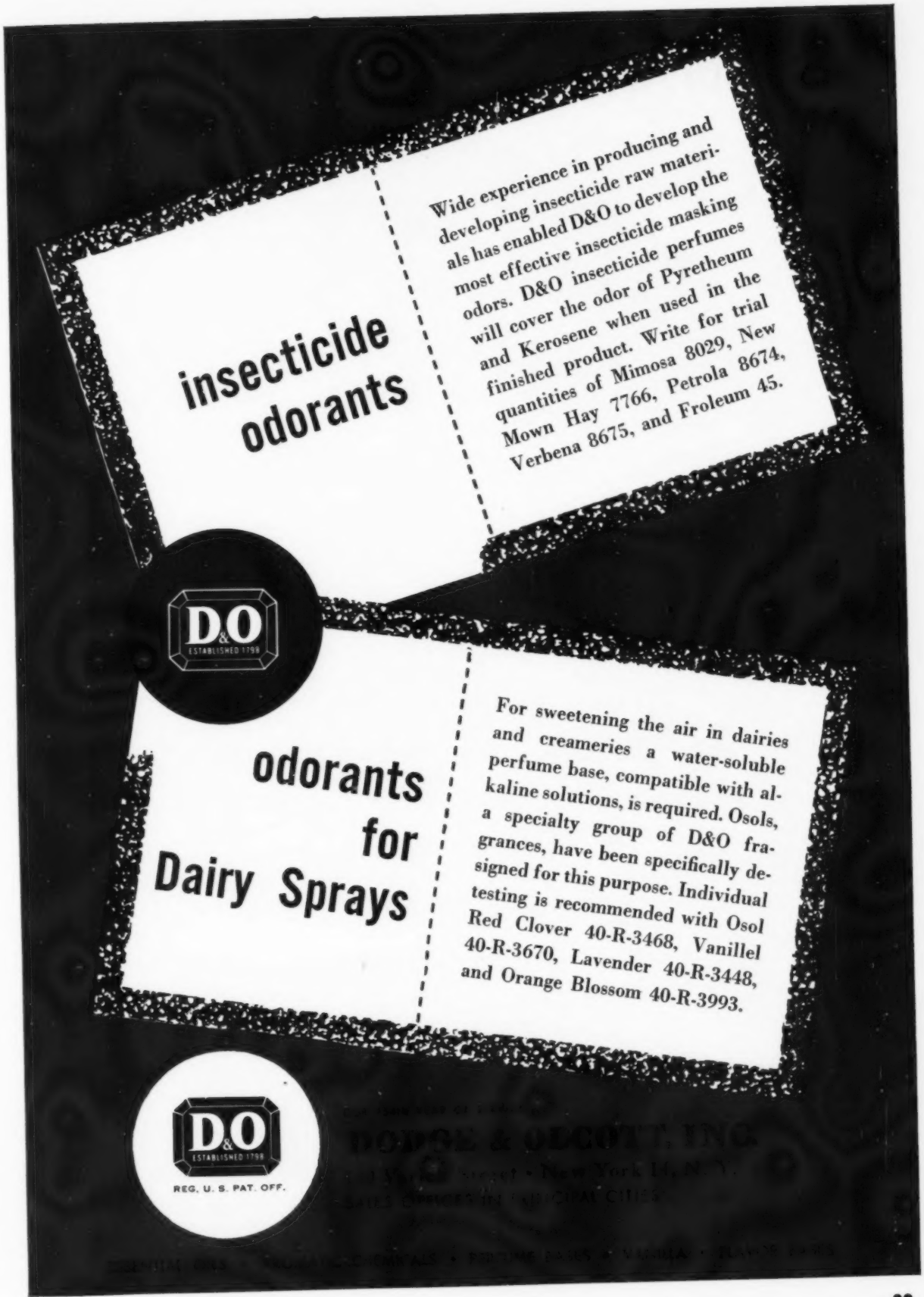
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Wide experience in producing and developing insecticide raw materials has enabled D&O to develop the most effective insecticide masking odors. D&O insecticide perfumes will cover the odor of Pyretheum and Kerosene when used in the finished product. Write for trial quantities of Mimosa 8029, New Mown Hay 7766, Petrola 8674, Verbena 8675, and Froleum 45.
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Spray dust out of the air

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Dust particles are suspended in the air by their lightness and static charges.

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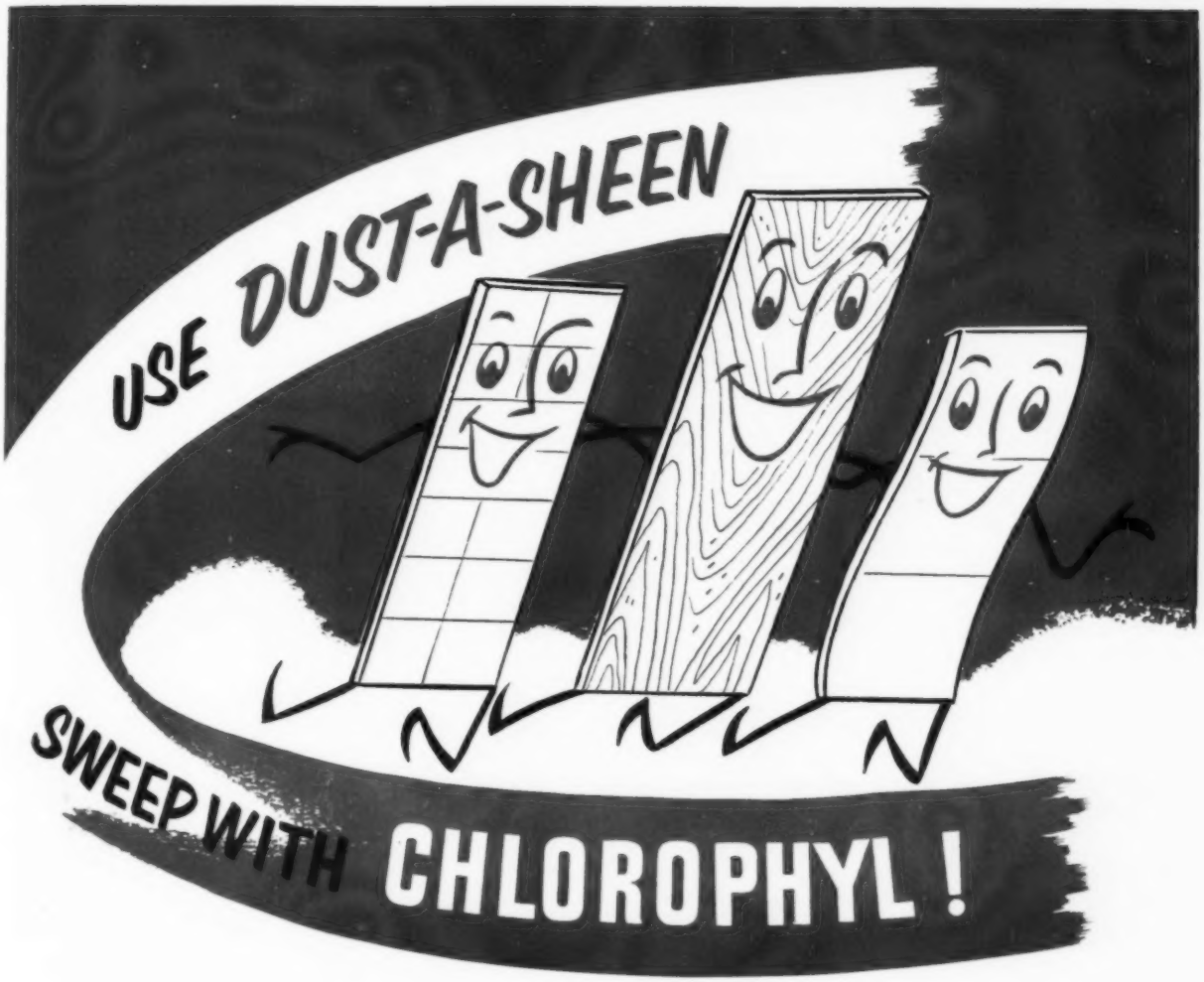

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Emphasis on Safety!
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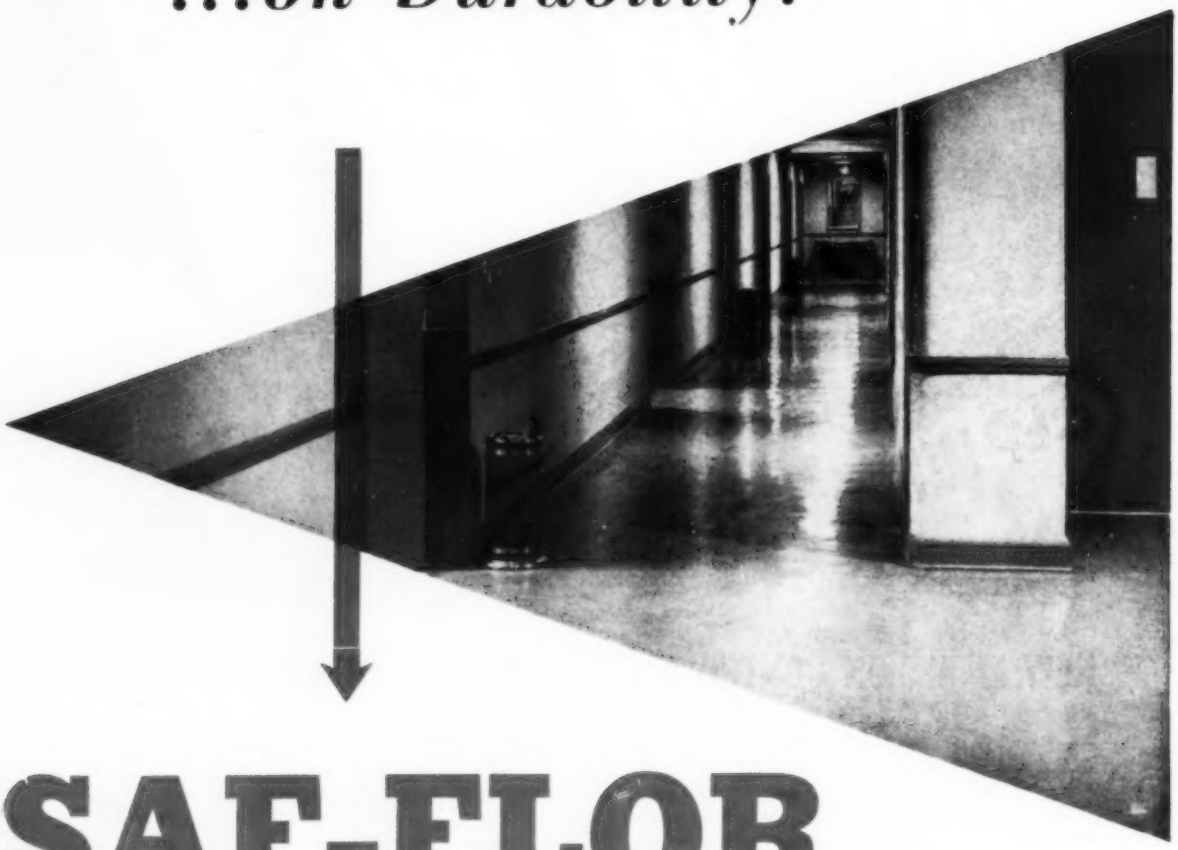

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Have you tested a sample of this new anti-slip, high-gloss floor wax? If not, let us send you a sample today!

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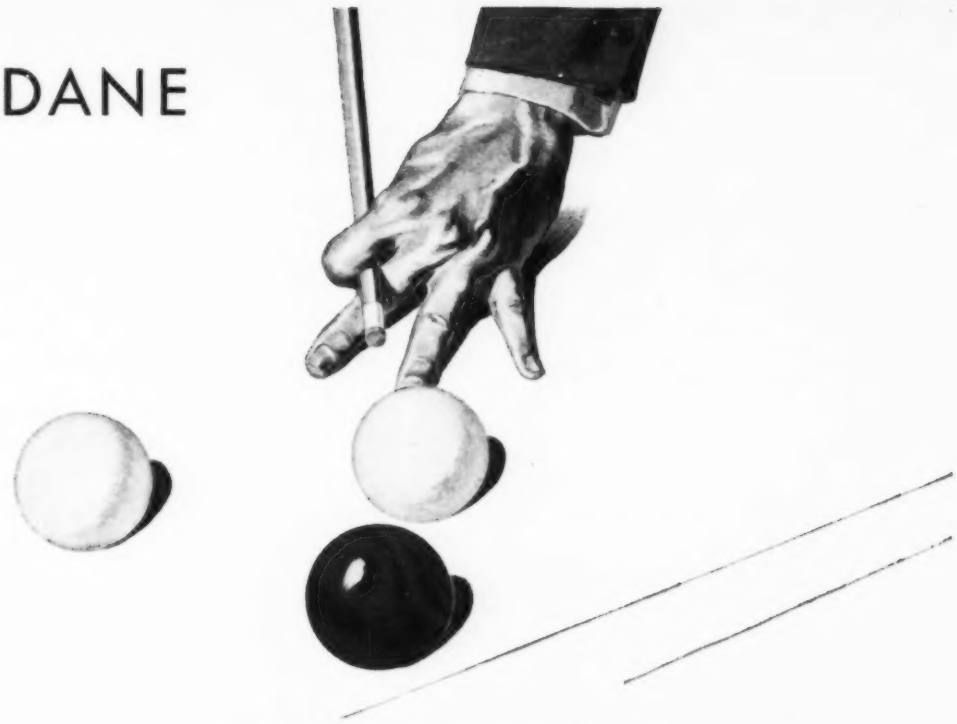

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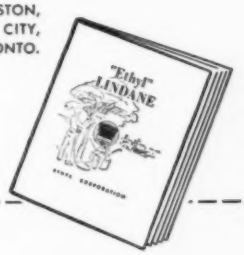

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DECEMBER 7-8, 1953

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. . . to include judging and selecting of best aerosol packages of the year

The aerosol package competition and awards will be divided into seven classes as follows:

1. Insecticides
2. Moth products
3. Room deodorants
4. Lacquers, paints, enamels
5. Other household products, — waxes, polishes, glass cleaner, etc.
6. Personal products, — shave lather, shampoos, body deodorants, hair lacquer, sun tan oil, etc.
7. Miscellaneous, — novelties, drugs, lubricants, etc.

. . . a top award for "best in the show" will also be made.

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Rules of the contest:

1. All entries will be made in the name of the brand owner or marketer.

2. Entries will close October 15, 1953. All entries should be sent as soon after Sept. 15 as possible to the Committee at the CSMA office, and should comprise one completely assembled empty container with attached tag showing (a) name and address of brand owner, (b) class in which entry is made.

3. Only one entry may be made by any marketer or brand owner in any one class, but entries may be made in as many classes as desired.

4. Entries are open to any aerosol brand owner or marketer anywhere, and are not restricted to members of CSMA. There are no entry fees or other charges to entrants.

5. Best packages will be selected in seven classes and a "best package in the show" will be named. Judging will be done by a group of qualified experts. Their decisions will be final and will be announced and awards made at the 40th anniversary meeting of CSMA in Washington.

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AEROSOL FESTIVAL COMMITTEE
Chemical Specialties Manufacturers Assn.
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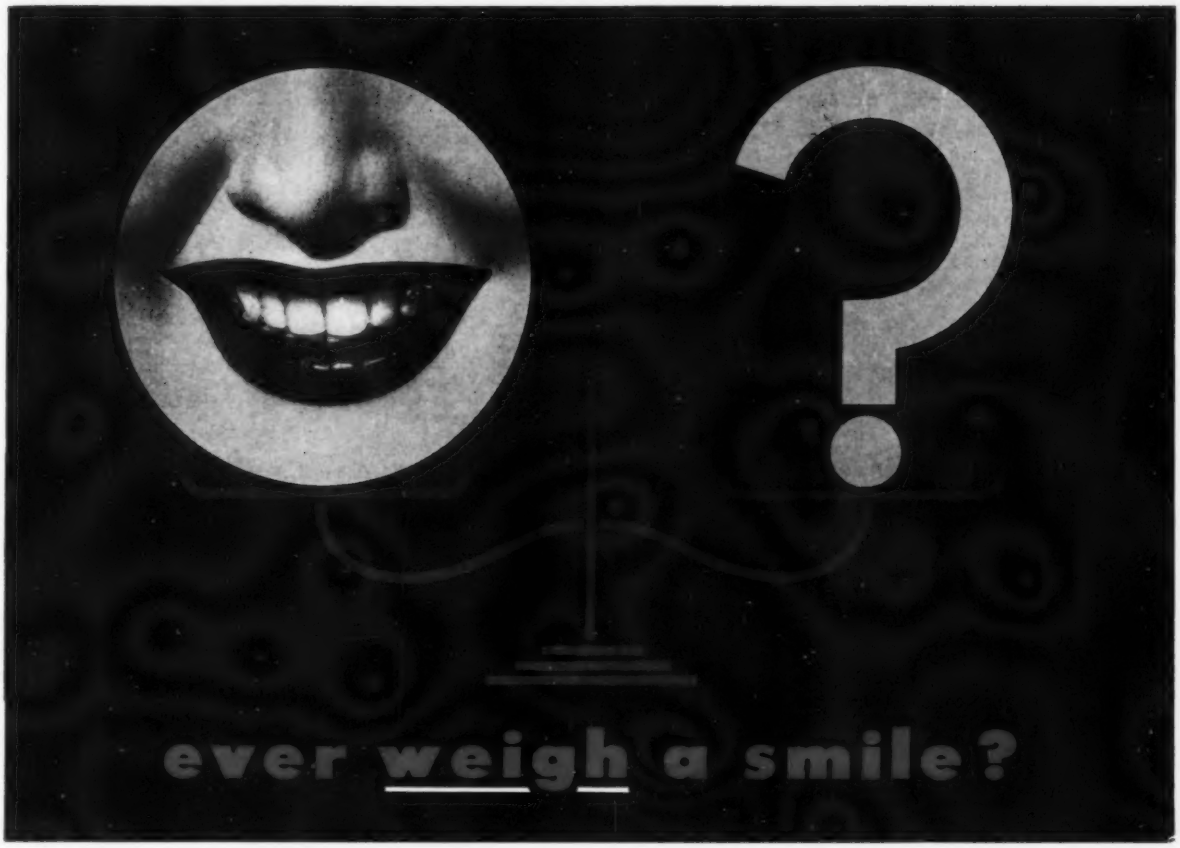

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Sanitation Management in

HOUSEFLY CONTROL

By Robert J. Dicke*

Department of Entomology, University of Wisconsin

REPORTS of farm fly control failures have been unusually prevalent in dairy areas during the past several years, and much of this failure has been attributed to ineffective insecticides. The development of resistance in flies to chlorinated hydrocarbon insecticides (and to some extent to such toxicants as pyrethrum) is given as the principal reason for this ineffective control.

In general, considerable pessimism regarding the fly control problem has been expressed by the farmer as well as by the professional entomologist. Many substitute measures are currently proposed including various mechanical devices and the introduction of insecticides previously considered dangerous for use on animals or in the dairy industry.

Sanitation, or limitation of fly breeding, is generally agreed to be a good farm practice, although not enough emphasis is given to this fundamentally important phase of the control problem. Field experiments were set up during the summer of 1952 with the purpose of determining the relative importance of sanitation management in a general housefly control program on Wisconsin dairy farms.

Twenty-one dairy farms in two areas of Wisconsin (Outagamie and Washburn Counties) were observed throughout the summer. The dairy barns were sprayed early in June with a residual insecticide of the farmer's choice. In addition, each farmer was provided with a pyrethrum water emulsion spray for application to cattle or as a general space spray. Examinations of farms were made throughout the summer to estimate general fly populations and determine principal fly breeding sites. Fly populations were sampled by taking six sweeps with a net in the area of their maximum concentration. The following arbitrary limitations to describe the degree of control were employed: "adequate control", 0-2 flies per average sweep; "fair control", 3-9 flies per average sweep; and "failure" 10 or more flies per average sweep. Results of these tests are summarized in the table below.

Effective fly control was observed on only eight farms, while results for the entire summer were considered a failure on 11 farms and only fair on two farms. The degree of fly control appeared to be directly associated with the extent of effective sanitation management. Wherever good control was obtained, fly breeding was

*Paper presented at the 39th midyear meeting, C.S.M.A., Chicago, May 19, 1953.

Farm	Farm Application	Results	Conclusions
C-1	Carbola + lindane (calf barns); methoxychlor (dairy barn only)	Failure	Aug. & Sept. flies excessive. Breeding in manure dumps in yards.
C-2	Carbola + lindane	Failure	Excessive breeding in pens.
C-3	Carbola + lindane; frequent methoxychlor spot spraying	Adequate control	Breeding in pens excessive only during September.
C-4	Carbola + lindane (June); methoxychlor (July)	Adequate control	Breeding in pens excessive only during September.
C-5	methoxychlor	Fair control	Moderate breeding in manure pack in pen barn throughout summer.
C-6	methoxychlor	Failure	Excessive breeding in pens.
C-7	methoxychlor	Adequate control	Excellent sanitation.
C-8	lindane spot spray (June); methoxychlor (July)	Failure	Excessive breeding in pens.
C-9	methoxychlor	Failure	Breeding in pens; reasons for failure not clear.
C-10	Carbola + lindane	Fair control	Heavy breeding in silo late July.
C-11	Carbola + lindane	Failure	Excessive breeding in pens.
W-1	methoxychlor	Failure	Evidence of breeding in pens; flies excessive late July and August.
W-2	methoxychlor	Failure	Excessive breeding in pens and cattle yard.
W-3	methoxychlor	Failure	Excessive breeding in pens in barn.
W-4	methoxychlor	Adequate control	Good sanitation.
W-5	methoxychlor	Failure	Very poor sanitation; excessive breeding in barn and yard.
W-6	methoxychlor	Adequate control	Sanitation excellent in dairy barn; moderate breeding in calf pen only during September.
W-7	methoxychlor	Adequate control	Sanitation excellent.
W-8	methoxychlor	Adequate control	Sanitation excellent.
W-9	methoxychlor	Adequate control	Sanitation excellent.
W-10	DDT	Failure	Poor sanitation; excessive breeding in barn pens and in yard.

either negligible or occurred excessively only during late summer. Where failures were observed, excessive fly breeding occurred throughout the summer months on 10 of the 11 farms. The principal breeding site on nine of these farms was in the manure pack of young stock and bull pens where heavy maggot populations could be demonstrated throughout the summer. On one of the farms, considerable fly breeding occurred in barn yard manure piles. On one farm (C-9), the control fault was not readily demonstrated although moderate fly breeding was observed in young stock pens during mid-summer.

Effective sanitation management (by weekly removal of manure in stock pens or complete elimination of barn yard accumulations) was economically feasible on nine of the 11 farms where control failures were experienced. On two of the farms, however, major reconstruction of barns and pens appeared to be necessary for economical cleaning operations. On all of the farms studied, only one active fly breeding site was encountered other than stock pens or barn yard accumulations. This was an unusual but easily corrected situation where extensive breeding occurred in well cured silage during late July. As a result, only fair control was obtained on this farm during late summer (farm C-10). Fly breeding was difficult to control in the manure pack on a farm where loose-housing management was practiced (farm C-5). Fair control was obtained under these conditions, however, by inducing as much surface drying of the manure pack as possible. This was accomplished by alternating the loafing areas throughout the summer, and preventing cattle from creating excessively moist areas comparable to conditions in the small stock pens of the average stanchion-type barn.

Conditions for fly breeding in the areas of this study were optimum during the summer of 1952. An early, mild spring and warm summer months were favored by abundant rainfall and a high level of humidity within barns. Manure accumulations, especially in

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Field Testing

A MAJOR prerequisite for the successful application of any sanitizer is a simple and rapid analytical method which can be used in the field to determine the germicidal strength of the sanitizing solution. This is important in dairies, food plants, and restaurants where specific health department standards must be met and where the strength of a sanitizing solution must be known to be above a definite minimum safety value. Quaternary ammonium germicides are used as sanitizers, although a more general acceptance of this type of compound has been delayed by the lack of a satisfactory analytical method for field use.

Of the many analytical laboratory methods which have been developed for quaternary ammonium germicides, none is suitable without adaptation for field use; and proposed field methods have been found either to be too complicated for rapid analysis or insufficiently accurate or foolproof to satisfy the requirement of the user of the sanitizer.

In the course of investigations on sanitizers in this laboratory, work was undertaken to develop a satisfactory field test method for quaternary ammonium germicides in sanitizing solutions. This work was based upon the reaction described by Auerbach (1, 2), between quaternary ammonium compounds and bromophenol blue which results in the formation of colored salts. The Auerbach procedure, although an excellent laboratory method, is unsatisfactory for field use because it requires equipment and apparatus found only in the analytical laboratory. This reaction has been used as the basis for a number of proposed field test methods, many of which have already been reviewed in *Soap and Sanitary Chemicals* by DuBois (3) and Cucci (4), but it was not felt that any of these methods fulfill all the requirements for a satisfactory field test method. In spite of this it still appeared that the reaction between quaternary ammonium germicides and bromophenol blue could be utilized for development of a successful field test method for quaternary ammonium sanitizing solutions.

When a quaternary ammonium germicide and bromophenal blue are

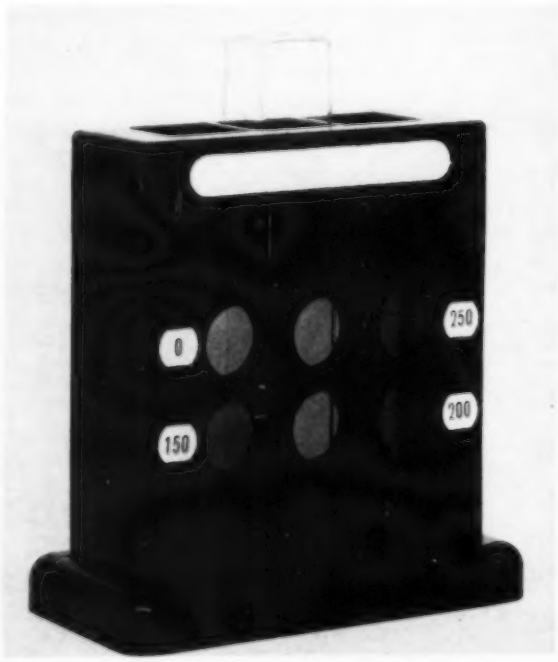

Figure 1. Color comparator for determining the concentration of quaternary ammonium germicides in sanitizing solutions.

Quaternaries

By G. B. Johnson
California Research Corp., Richmond, Calif.

New colorimetric field test uses glass color standards to determine germicide concentration of quaternary sanitizers

reacted in alkaline aqueous solution, the colored salt which is formed can be quantitatively extracted by organic solvents. The intensity of this extracted color can be used to determine the concentration of germicide in the original aqueous solution by comparison with the intensities of color obtained from quaternary ammonium germicide solutions of known concentration. Although solvents such as ethylene dichloride and benzene can be used to extract the colored salt, we found that CP chloroform is a more satisfactory and practical solvent. In order to obtain the maximum color development, the chloroform must be saturated with water as the color is unstable in dry chloroform. Reaction can be most simply carried out by adding dry bromophenol blue to an aqueous solution of the germicide. To insure that the reaction medium is alkaline, excess sodium carbonate should be added. It was found that the bromophenol blue and the sodium carbonate can be premixed and added together as a dry tablet without altering the quantitative nature of the reaction.

The reaction and the subsequent extraction of the reaction product by chloroform can be carried out simultaneously in a 60 ml separatory funnel, calibrated to show the volume of sanitizing solution and the volume of chloroform which are required. After addition of the two solutions, it is only necessary to add a sodium carbonate-bromophenol blue tablet to the funnel.

Color intensity of the quaternary ammonium-bromophenol blue salt in chloroform solution can be measured with a photoelectric colorimeter. Since this type of measurement is not practical in field testing, a series of glass color standards corresponding in color intensity to the colors developed from the reaction between bromophenol blue and known concentrations of the germicide was designed. Comparison of the reaction color developed from a sanitizing solution with the glass color standards permits a simple and rapid field estimation of the concentration of germicide in the sanitizing solution. Design of the color glasses and a simple comparator instrument, Fig. 1, permitting easy comparison between the color developed from a sanitizing solution and the color glasses, was carried out in cooperation with H. C. Hellige of Hellige, Inc.

Differentiation between the colors developed from quaternary ammonium germicide solutions of different concentrations becomes more apparent as the concentration is reduced. Easiest differentiation is in the range from one to 10 ppm quaternary ammonium germicide. A quaternary ammonium sanitizing solution, for most applications, must contain a minimum of 200 ppm of the germicide, a concentration far beyond those enabling an easy visual color differentiation. To ensure maximum accuracy for the field test it was evident that a sample of a sanitizing solution containing approximately 200 ppm quaternary ammonium germicide would have to be diluted before a definite and precise color test could be obtained. The test procedure was therefore modified to include dilution of an aliquot of the sanitizing solution prior to carrying out the color test. The aliquot can be measured either with a graduated pipette or with a dropper known to deliver a certain number of drops per milliliter.

As a result of these investigations the following field test procedure was developed:

Procedure

I. Reagents
1. Chloroform, C.P.
2. Sodium carbonate-bromophenol blue tablet prepared by mixing 0.037 parts of bromophenol blue with 100 parts of sodium carbonate and pressing into tablets weighing approximately 0.75 grams each.

II. Apparatus
1. 60 ml separatory funnel calibrated and permanently marked with two lines indicating 10 ml and 40 ml.
2. Graduated one ml pipette or dropper known to deliver 10 drops of water per milliliter.
3. Hellige Color Comparator

III. Procedure
1. Add 10 ml CP chloroform, and 30 ml water to 60 ml separatory funnel.
2. With either graduated one ml pipette or dropper add to the separatory funnel 0.3 ml of the quaternary ammonium sanitizing solution to be tested.
3. Add one sodium carbonate-bromophenol blue tablet to the separatory funnel.
4. Shake separatory funnel vigorously for 30 seconds and then allow the chloroform and water layers to separate. If quaternary ammonium germicide was present in the sanitizing solution the chloroform layer will be colored blue.
5. Drain the chloroform layer into color comparator tube and match color against the standard color glasses. The concentration indicated by the closest color match is the concentration of quaternary ammonium germicide in the sanitizing solution under test.

Color intensity developed by a

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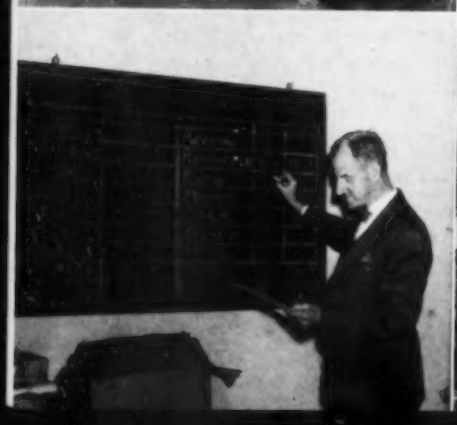

Sales Contests Pay

DID you ever hear salesmen sing a theme song just before a sales meeting? Well, if you haven't, you should walk into the sales-meeting room of F. W. Hoffman & Co., Inc., Philadelphia, on a Monday evening. Here you will hear the sales force of this organization lustily singing the song, "Enjoy Yourself, It's Later than You Think." After this theme song the meeting starts to roll.

"We conduct sales meetings for our sales force every Monday evening," says Frank W. Hoffman, president, "because we feel that it is essential to the proper operation of our business. And there is nothing better than a song to get our salesmen in good humor and a receptive mood to conduct our business. We have been holding these meetings for years and have found them to be the backbone of our sales promotion activities."

F. W. Hoffman & Co. lays particular emphasis on the sales activities of its salesmen. Since, in the mind of the buyer, at least, salesmen represent the firm, unless they are of the right calibre the proper impression of the company is not created. Years of experience in supplying customers with their sanitary supply needs have shown that few customers know anything about the firm with which they are dealing other than what the salesmen contacting them convey. For that reason, the salesman must be truly representative of what the firm employing him stands for.

F. W. Hoffman & Co., currently employs 18 salesmen. Of these, 14 work out of the Philadelphia office, which is the headquarters of this organization and two each work from the Reading, Pa. and Atlantic City, N. J. branches. Thus the firm gets complete coverage of the area that it serves.

As salesmen represent the firm for which they are employed, great care is exercised in recruiting new employees, training them and keeping track of their progress. They are continually under the supervision of the sales manager or his assistant and in this way they develop into specialists. When it is noted that one salesman has been with the Hoffman company for 35 years, another for over 25 years, and several for close to 20 years, it must be realized that these salesmen have proven their worth not only to the firm, but to themselves. Long term employees are an essential part of this firm's business operations.

Developing Salesmen

WHEN there is an opening for a new salesman, applicants are interviewed by Mr. Hoffman and his sales manager, John E. Coyle. They

CAPTIONS

John Wilson and Frank W. Hoffman, top left, confer on a sanitary supply sales problem. Alternating light and dark panels in showroom. 2nd photo from top, set off merchandise. Exterior of Hoffman showroom and office. Mr. Hoffman conducting a sales meeting. John Wilson, bottom, records results of sales contest on a large wall-type blackboard.

Range of sanitary supplies carried by F. W. Hoffman & Co. displayed in showroom below. John S. Wilson, treasurer, checks file of cards showing all merchandise carried by firm.

off for F. W. Hoffman & Co.

By Phil Lance

try to hire a salesman showing stability, sales personality and a definite liking for the business. After the applicant is accepted, he is placed on floor sales in the firm's store. Here he learns the names of products, handles customers on the sales floor and writes up telephone orders.

"While he is in the store," says Mr. Coyle, "the salesman can ask questions of other salesmen or executives so that he becomes completely familiar with the lines that we handle. As a rule, we keep a new salesman in our store for a period of three weeks, at the end of which time we feel that he is ready to go out on calls."

After the first week out, Mr. Coyle checks his new salesman's records. He also discusses sales potentials with him. If he finds that the salesman has his "feet-on-the-ground", he allows him to continue, otherwise, he may assign another salesman to him or go out on calls with him personally. In this way a new salesman is properly broken in to the methods of doing business the "Hoffman-way."

Mr. Coyle does not only concern himself with new salesmen. He also keeps his regular salesmen under supervision. He regularly checks over the sales books of his salesmen to see that they are making calls on all the accounts in the books, questions them concerning the sale of certain products and merchandise and also makes a special note of "drops."

If any salesman loses a customer and can't get him back on his books, he must immediately file a Drop-Slip with Mr. Coyle. The sales manager talks over the situation with the salesman and pays a personal call on the "quit-customer" in an effort to resell him. Sometimes a slight misunderstanding can be corrected, or, possibly the account can be "rescued" by turning it over to another salesman. On other occasions, Mr. Coyle has found that by revisiting the customer a few times he can persuade him to buy once again from Hoffman. In any case, every effort is made to keep customers on the firm's books.

Salesmen Have Accounts

EACH salesman has his own list of accounts. There is no territory break-down or type of business that each salesman follows, such as restaurants, hotels, service stations, etc. Each salesman has his own list of accounts that may include any or all of these classifications.

Starting salesmen are given a list of accounts. These lists may be made up of surplus accounts on other salesmen's books, new prospects who have telephoned in and other business that is obtained. Thus, every salesman starts out with a list of accounts to call on and he tries to build them up. Salesmen work on a commission basis and like this method of compensation.

In an effort to permit salesmen to make the most contacts daily and not to burden them down with samples, supplies and sometimes equipment in order to give a customer a demonstration, a floor maintenance division has been set up within the firm. Mr. Coyle is in charge of this division.

The Hoffman company set up a floor maintenance division because, through experience, it has found that almost 40 percent of its business concerns itself with floor maintenance equipment, supplies and merchandise. In an effort to capture as much of this business as possible, and still permit the salesmen to make the most of their day and calls, a separate division has been established.

"Our salesmen hand in slips on all their customers and prospects who may be in need of floor supplies and equipment," says Mr. Coyle. "Then it is left up to the floor maintenance division to service these accounts. In this way the salesman is then concerned with the sales of all other materials and he can get around much faster. All sales coming from these customers or prospects are credited to the salesman for their regular commissions."

Either Mr. Coyle, his assistant, Joseph F. Kobie, Jr., or another individual attached to the floor maintenance division makes regular calls on accounts for this business. Because they are concerned solely with the sale of floor care items, they spend more time and effort promoting the sale of these materials and equipment.

"If necessary, we will spend a half-day or more with a customer demonstrating a piece of equipment or

Monday evening sales meetings are conducted by Frank Hoffman as shown in typical one below. Jock Coyle, left in photo (right) lists sales contest results read off by his assistant, Joseph F. Kobie, Jr.

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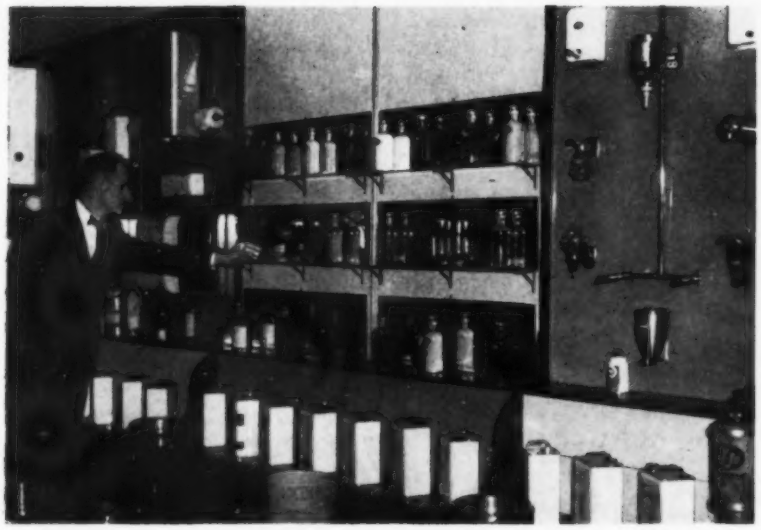

John S. Wilson checks stock in Hoffman showroom.

the application and use of a floor product," explains Mr. Coyle. "Now this is something that a salesman can't do because he has to make too many calls. Then, again, our floor maintenance division is made up of experts on floor maintenance and we are in a better position to promote, sell and demonstrate our equipment and products. In this way, we get better coverage of our accounts and can give the emphasis required to the biggest selling lines in our business."

One of Mr. Coyle's main duties is the study of his salesmen's records. In any type of business, sales drops must be expected, but Mr. Coyle tries to develop extra business that will act as a cushion to a sales decline.

As an example, it is pointed out that a 40 percent loss in floor wax business is experienced annually from regular customers. For the same period however, the firm picks up a 60 percent increase of wax business from new customers, thus the firm closes the year with a 20 percent gain in sales of floor waxes. Of course if the loss were cut, it would be even better, but sales of different products always fluctuate from one period to another.

"Whenever I notice a drop in sales of any particular product, I immediately stress it and try to have salesmen make up for it with sales to new customers." Mr. Coyle says, "Salesmen can not always sell their customers everything in their line, but if sales of an item are dropping off we bring it to the attention of salesmen that are not selling this item and encourage them to push it. In this way, new and expanded sales of the item to regular customers take up the slack caused by declining sales to other customers."

Incentive Plans

THROUGHOUT the year, Mr. Hoffman tries to stimulate the activities of his salesmen with a variety of incentive plans. Some promotions are offered by manufacturers selling Hoffman, other promotions are developed by the firm itself and others are combinations worked out between the manufacturer and the Hoffman company.

"About $5000, which may be a combination of cash or merchandise, is offered during the year to our salesmen through promotions," according to Mr. Hoffman. "As our promotions naturally cover sales increases, salesmen not only have an opportunity of getting extra bonus money, but also increase their earnings with their increased sales. We are constantly working on promotions that will help to stimulate our salesmen's activities."

In an effort to have salesmen increase their sales of floor wax towards the close of the year and also to have them obtain special income for the holiday season, the firm has worked out a "Santa Claus Special." This same promotion can be used at any other time of the year under a different title. Here are the rules and regulations of the contest:

First, salesmen get 10 cents for every gallon of new business delivered and billed during the six weeks' contest period. This covers a selected line of products.

Second, salesmen get five cents per gallon for every gallon of repeat business (regular business) delivered and billed during the six weeks' period. Thus, regular customers buying this merchandise give the salesmen credit as do new customers.

In addition, there are five prizes for the top men of the total gallonage sold, old and new business combined. These prizes are: first, $50; second, $40; third, $30; fourth, $20; fifth, $10.

This applies to the six weeks' period beginning November 7th and running through December 12th. All awards are made the week before Christmas.

New business is considered a new account only, or one that has not purchased from this selected line for a six months' period. Switching a customer from one line of products into the one selected for the contest is not considered as new business.

A copy of each order written up must be handed into the office to receive full credit on it.

A five-pound order of paste wax is equal to one gallon of liquid floor wax.

Gallonage only counts. No credit is given for floor machines, etc.

To qualify for one of the five top prizes, a man must sell a minimum of 400 gallons in the six weeks' period.

To qualify for the 10 cent and five cent per gallon payments, a salesman must sell 250 gallons during the contest. And as an extra bonus, if 10,000 gallons of merchandise is sold in this contest, all the salesmen are given a dinner.

"In the first week of this contest," relates Mr. Coyle, "the combined total of all salesmen for new business amounted to 337 gallons. Sales from old accounts totaled 1,090 gallons. As our usual sales for this

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same period amount to 800 gallons, it is easy to see how the contest stimulated sales and created more business."

In an effort to show salesmen how they were progressing in the contest, not only in terms of added income but also in their respective standings for the top prizes, Mr. Coyle charted sales activities on a blackboard.

This chart lists the names of salesmen down the left hand column. Across the top are columnarized the six weeks of the contest. Each weekly period was divided into new and old business and as this business was registered, it was marked on the chart. Thus each man saw how he stood in the contest and how the others were coming along.

"We like to boost every line and type of product that we stock whenever possible," says Mr. Hoffman, "so we work out contests covering nearly all the merchandise we carry. At intervals, we select two or three items for our salesmen to concentrate on for a week. Mr. Coyle checks to see if the salesmen are pushing these products and, in that way, we try to acquaint all of our accounts with the supplies that we handle."

Recently the firm conducted a paper sales contest that originated with the manufacturer. This contest was conducted nationally by the manufacturer's sales outlets. F. W. Hoffman & Co. was among the top scoring organizations. The promotion, identified as a fall harvest contest, started October 6th and ran through February 15th. Merchandise prizes were the reward for all sales on new accounts for paper towels, toilet tissues and windshield wipers.

While the contest was confined to the sale of paper products to new accounts only, there was one exception to the rule. Former accounts lost to another line of products, that were resold on the line around which the contest was built, were considered as new accounts.

In addition to the prizes awarded by the paper manufacturer, the Hoffman company cooperated by offering cash prizes of its own as an added incentive to its salesmen. They offered $25 to the salesman selling the most new accounts and $25 to the salesman selling the most paper products. No one salesman could win both prizes. To qualify for the prizes, a salesman had to sell a minimum of 15 new accounts for a total of 100 cases. All of these sales had to be to new accounts.

Maintaining Stock Requirements

BECAUSE of the sizable sales volume of F. W. Hoffman & Co., a complete and accurate stock system and records are essential. Records are handled by John S. Wilson, secretary-treasurer, and also purchasing agent.

Mr. Wilson maintains a visible file system of all the "key" products handled by the firm. Because of the hundreds of items kept in stock he makes sure that he knows the main sales products. Between the purchase of the key items, he fills in with the other stocks and in this way keeps up the firm's inventory.

A visible file system is used by Mr. Wilson to keep track of stocks of "key" merchandise. This visible file system is broken down into classifications, such as brooms, waxes, polishes, cleaners, etc., with as many drawers of the visible file system as are needed devoted to these items. The drawers are labelled as to product classification.

There is a separate card in each drawer for every item stocked in that category. Thus, if the firm handles 15 different mops, there are 15 different cards. Each card identifies the name of the manufacturer, date of order, purchase order number and quantity ordered.

"We do not keep a perpetual inventory record of these items because if we did so, we would have a maze of paperwork to do," Mr. Wilson pointed out. "Instead all we do is record the orders that are placed. By checking our cards, we can tell how often and what quantities we have reordered from suppliers. This gives us an idea of our sales."

Every warehouseman and shipper has been given specific orders to make a note of stocks of any item that are getting low. As they are the people who fill orders, replace stock and handle the supplies, warehousemen and shippers can always tell if a certain item is running low. In this way, Mr. Wilson is always in touch with the condition of his stock and he can place his orders before stocks are exhausted.

All the merchandise stocked by the Hoffman company has been departmentalized to make it easy to fill orders. There is a section for brooms, mops and brushes; another for cleaners; one for paper products, a section for galvanized metal ware stocks, etc. Each department is broken down as to brand classifications, so that specified brands can be easily selected to fill orders.

As a physical inventory is taken annually, all the salesmen assist the stockmen. In this way the job is done quickly. It also helps salesmen to become even better acquainted with the stocks on hand.

Private Label

IN addition to the handling of a full line of nationally advertised products, F. W. Hoffman & Co. has products under its own label. These are promoted as the F. W. Hoffman Co., "Waldorf" brands. In an effort to make it easier to identify the private brand merchandise, a color scheme system is used. Three colors are employed for labels to identify different types of products. An orange label is used to identify floor products, green for disinfectants and blue for polishes.

"Nationally advertised products are a must for us," says Mr. Coyle. "Our salesmen find them easier to sell because such products have already been promoted by the manufacturer and are in demand. But we also must have private label merchandise so that we can have some control over our stocks. If any customer is in doubt about an item, when it comes to price, quality or any other factor, we can recommend our own brand because we stand directly behind it. And because we are the sole distributors of our own brand, we are in a position to control our stocks better."

F. W. Hoffman & Co. tries to display a sample of everything that it stocks in its showroom. It has been established that a showroom is essential to the successful operation of a sanitary supply business because it is

(*Turn to Page* 135)

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Acid Numbers of Shellac

A comparison of methods for the determination of acid numbers of refined bleached shellac ...

By D. E. Whyte, W. K. Miller and R. H. Simon*

S. C. Johnson & Son, Inc.
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IN THE preparation of wax emulsions from formulations requiring refined bleached shellac as an ingredient, it has been found that the acid number of the shellac is an important factor in predicting its performance in the emulsion. If the consumer's specifications are to be met, it is imperative that supplier and consumer agree on the method of determining the acid number. For this reason, a comparison has been made of the procedures in use, and recommendations have been made for the establishment of a standard method based on the results of this investigation.

A survey of the literature has indicated that a variety of methods are in use for the determination of acid numbers of lac and shellac. The intense color and ease of hydrolysis of the materials have been largely responsible for the number of methods. Solutions of bleached shellac are colorless, but lac and orange shellac are highly colored, rendering the use of phenolphthalein as an indicator extremely difficult. In addition, it is reported by Weinberger and Gardner (1) that alcoholic solutions of lac undergo hydrolysis during titration, causing the results to be high. These factors have also been studied by the London Shellac Research Bureau (2) and the Indian Lac Research Institute (3). Potentiometric titrations (4, 5), outside indicators (6), and the two-phase titrating system (7) have been recommended as means of combating the sample color. The use of more dilute (0.1N) alkali as titrant and the avoidance of heat have been recommended in order to minimize hydrolysis. In a recently published method (8) for the iodometric determination of the acid number of lac, it was reported that lower values are obtained iodometrically because the solution never becomes alkaline, thus avoiding the possibility of hydrolysis.

The methods of various suppliers of bleached shellac disagree with respect to the solvent, the application of heat and, in some cases, the titrant. The approved method of the American Bleached Shellac Manufacturers Association (9) requires ethanol as a solvent, alcoholic KOH as titrant and thymol blue as an outside indicator. None of the bleached shellac suppliers are known to be using this method. In fact, all of the laboratories employ phenolphthalein as the indicator since bleached shellac solutions are practically colorless.

In our laboratory it has been the practice to determine the acid numbers of all materials by a single procedure. The sample is dissolved with the aid of heat in a solvent consisting of two parts ethanol and one part benzene previously neutralized to the phenolphthalein end point. The sample is then titrated with aqueous 0.1N KOH using phenolphthalein as an indicator. The mixed solvent was chosen because of the variety of materials titrated, some of which are insoluble in alcohol alone.

The bleached shellac suppliers employ ethyl alcohol to dissolve the sample. Three procedures specifically discourage the use of heat in dissolution, presumably because of the possibility of partial hydrolysis. One method specifies KOH in methyl alcohol as a titrant, while ethanolic KOH is a choice in two procedures. The sample is titrated with sodium hydroxide in only one of the laboratories.

Experimental and Discussion of Results

TWO solvent systems, ethanol and a mixture of ethanol and benzene, and two titrants, aqueous KOH and alcoholic KOH, were arranged in the four possible combinations to form the individual procedures to be tested in the preliminary phase of this study. The shellac samples used in the experiments were taken from two separate lots of each of five suppliers, yielding a total of 10 samples. The samples were ground in a coffee mill, thoroughly mixed and kept under refrigeration prior to weighing the individual portions. In the first experiments, duplicate determinations were made on every sample by each of the four selected procedures. The duplicates included one determination on the undried sample corrected for the moisture content which was determined separately (10). The duplicate titration was made on the dried sample from the moisture determination. A total of eight acid number determinations were thus made on every sample, each determination differing from the others by at least one factor in the method of obtaining the value. At least one titration by each of the four procedures was carried out potentiometrically by means of a pH meter

* Presented at 39th midyear meeting, Chemical Specialties Manufacturers Association, Inc., Chicago, May 19, 1953.

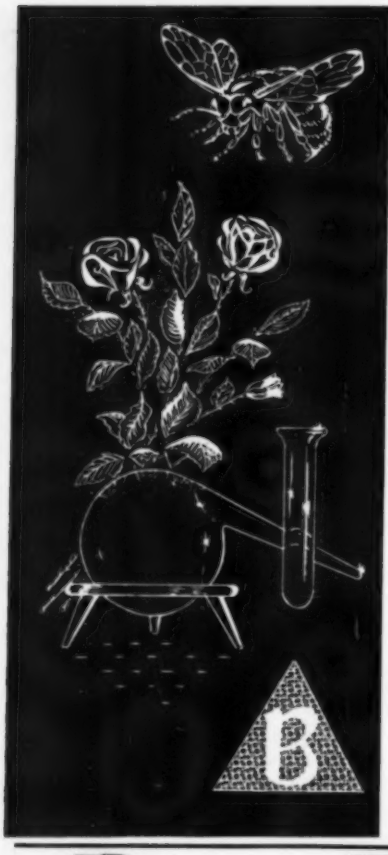

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Table I. Comparison of Procedures for the Determination of Acid Numbers of Shellac

	Acid Number, mg. KOH/g. Sample									
	Wet Sample Corrected for Moisture				Dry Sample					
Sample No.	A	B	C	D	A	B	C	D	Average	Std. Dev.
1	86.2	86.1	86.2	86.0	85.8	86.3	85.7	85.3	86.0	0.3
2	87.8	88.2	87.2	88.3	87.9	88.1	87.8	87.8	87.9	0.3
3	86.7	87.4	87.0	87.5	86.5	87.3	87.2	87.4	87.1	0.4
4	86.2	86.4	86.5	87.3	86.4	86.9	86.2	85.6	86.4	0.5
5	88.3	88.7	88.9	88.8	88.9	89.3	88.7	89.1	88.8	0.3
6	83.9	84.3	84.4	83.7	83.9	84.6	84.1	84.4	84.2	0.3
7	74.9	74.1	74.4	75.4	74.9	75.1	74.8	74.3	74.7	0.4
8	74.7	73.9	75.2	75.5	74.7	75.2	74.6	74.8	74.8	0.5
9	84.3	84.2	84.2	84.5	83.6	85.4	84.3	84.6	84.4	0.5
10	83.1	83.8	83.8	84.2	83.3	84.9	83.7	84.2	83.9	0.6

A—Solvent, 2 parts ethanol, 1 part benzene; titrant, aqueous KOH
B—Solvent, 2 parts ethanol, 1 part benzene; titrant alcoholic KOH
C—Solvent, ethanol; titrant, aqueous KOH
D—Solvent, ethanol; titrant, alcoholic KOH

in the presence of phenolphthalein. In every case the color change occurred in the region of maximum change of pH, proving the validity of using phenolphthalein as the indicator.

The results of the acid number determinations by the four selected procedures are shown in Table I:

These results show that comparable values can be obtained by any combination of the aforementioned solvents and titrants, and it is immaterial whether the shellac is dried prior to the titration or the sample weight merely corrected to the moisture-free basis. Deviations between duplicates obtained by the same titrating system appear to be of about the same magnitude as those between individual determinations by the different methods.

In the titrations involving the benzene-alcohol solvent and aqueous KOH as titrant, a cloudiness usually occurs before the end point is reached because of the limited solubility of water in this medium. Although the cloudiness apparently does not affect the results, a completely homogeneous titrating medium is desirable. Since aqueous alkali is more easily and economically prepared and stored than the alcoholic base, a system of ethanol as solvent and aqueous 0.1N KOH as titrant was chosen for subsequent tests.

Effect of Heat

ONE of the most controversial steps in the determination of the acid number of shellac is the application of heat in dissolving the sample. As previously mentioned, other investigators have found that heat aids in the hydrolysis of lac, and most bleached shellac suppliers, probably basing their viewpoints on the earlier studies, have cautioned against the use of heat in their procedures. In order to test the effects of heat on the results, three separate treatments were given the sample prior to the titration. In the first experiment the sample was dissolved and titrated at room temperature; another sample was dissolved at the boiling point of ethanol, cooled to room temperature and titrated, while a third sample was dissolved at the boiling point of ethanol and titrated immediately without cooling. Quadruplicate determinations were made on a single sample by each of the three variations. The results are shown in Table II:

These figures indicate that the application of heat has no effect on the procedure for the determination of the acid number of bleached shellac. The results do not contradict those of the earlier investigators (1) since their studies were made on lac and orange shellac instead of bleached shellac. The lactone groups, which apparently are responsible for the ease of hydrolysis of lac, probably would not withstand the vigorous treatment of hypochlorite in the bleaching process. It is not surprising, therefore, that bleached shellac fails to exhibit the same hydrolysis properties as those of lac.

The almost universal use of potassium hydroxide as the titrant for the determination of acid numbers probably can be traced primarily to the fact that the acid number of a substance is defined as the number of milligrams of KOH required to neutralize a gram of the material. Nevertheless, aqueous sodium hydroxide is more easily prepared in a relatively

Table II. Effect of Heat on the Determination of Acid Numbers of Shellac

	Acid Number, mg. KOH/g. Sample		
Test*	A	B	C
1	86.3	86.8	86.5
2	86.3	86.3	86.4
3	86.4	86.5	86.5
4	86.0	86.5	86.5
Average	86.3	86.5	86.5

A—Sample was dissolved at room temperature and titrated at room temperature.
B—Sample was dissolved at the boiling point of ethanol, cooled to room temperature and titrated.
C—Sample was dissolved at the boiling point of ethanol and titrated without cooling.
* All determinations were made on a single undried sample, the weight of which was corrected for moisture content. The solvent was ethanol and the titrant 0.1N aqueous KOH.

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	23	180 min.	4-6	4-5	20-25	55-65
	36	180 min.	5-7	5-6	30-35	75-85
	50	180 min.	3-5	dark	10-20	65-75
MICROCRYSTALLINE	180	180 min.	15 max.	2-2½	Nil	Nil
	200	190 min.	8 max.	brown	"	"
	500	190 min.	8 max.	2-2½	"	"
	700	190 min.	4 max.	2-2½	"	"
	1035	195 min.	2 max.	2-2½	"	"
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	ESTAWAX 25	210 min.	2 max.	3 max.	"	"

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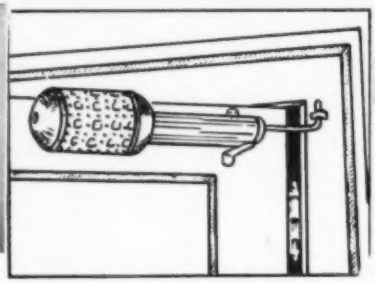

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Table III. Comparison of the Acid Values of Shellac as Determined by Titration With 0.1N NaOH and 0.1N KOH

Sample No.	Acid Number, mg. KOH/g. Sample		
	0.1N KOH, A*	0.1N NaOH, B**	Difference, A-B
1	86.0	85.0	1.0
2	87.9	86.8	1.1
3	87.1	85.9	1.2
4	86.4	84.9	1.5
5	88.8	87.3	1.5
6	84.2	82.9	1.3
7	74.7	73.9	0.8
8	74.8	73.9	0.9
9	84.4	83.1	1.3
10	83.9	82.6	1.3

* Average of eight determinations
** Average of three determinations

carbonate-free state and would be expected to yield comparable results. Triplicate titrations with aqueous 0.1N NaOH were made on each of the 10 shellac samples originally studied. The results of the determinations are compared in Table III with the averages of the eight previous titrations with KOH:

The acid numbers as determined by titration with sodium hydroxide were invariably lower than those obtained by titrating with potassium hydroxide. The normalities of the titrants were checked and found to be correct, eliminating the possibility that the results in Table III were invalid because of faulty standardization. The most logical explanation for the differences is that of an increased carbornate content in the KOH. The predicted higher concentration of carbonate in the KOH was confirmed by adding a few ml. of one percent $BaCl_2$ to the solution, producing a heavy precipitate of $BaCO_3$. A slight precipitate was produced similarly in the sodium hydroxide, but the carbonate content was much less than that of the KOH.

The carbonate was removed from both alkali solutions by passing them through an anion exchange resin (Dowex-1, hydroxide form). The effluent from the ion exchange column was protected from the CO_2 of the atmosphere by inserting an ascarite guard tube into the receiving vessel. The failure of a precipitate to form on addition of $BaCl_2$ verified the expected absence of carbonate in the effluents. The solutions were then standardized with potassium biphthalate, and the acid numbers of the shellac samples were again determined by titrating with the carbonate-free hydroxide solutions. The results of these determinations are shown in Table IV:

It can be readily seen that these results agree much more closely than those of the previous tests, with both positive and negative differences being prevalent. It is also significant that all of the values obtained by the carbonate-free titrations are lower by approximately one acid number unit than the averages of those originally obtained by KOH titration. In order to obtain a true acid number, therefore, carbonate-free hydroxide should be used as the titrant. Carbonate-free sodium hydroxide can be prepared by diluting 50 percent NaOH (from which the carbonate has been filtered) with distilled water which has been boiled to expel CO_2. An alternative and more efficient method is to remove the carbonate by means of an anion exchange column.

Recommended Procedure

GRIND the bleached shellac in a coffee mill, and with the aid of heat dissolve a 2-g. sample in 50-100 ml. of neutral ethanol. Add about 0.5 ml. of phenolphthalein and titrate with 0.1N carbonate-free NaOH or KOH to the first permanent pink coloration. Determine the moisture content (10) of the shellac and correct the sample weight to the moisture-free basis, or alternatively, perform the determination on a sample which has been previously dried in a vacuum desiccator (10) at a temperature not exceeding 41°C.

$$\text{Acid Number} = \frac{\text{ml. of titrant} \times \text{normality of titrant} \times 56.1}{\text{dry weight of sample, grams}}$$

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Table IV. Determination of Acid Numbers of Shellac by Titration With Carbonate-Free Alkali

Sample No.	Acid Number, mg. KOH/g. Sample		
	0.1N KOH, A	0.1N NaOH, B	Difference A-B
1	85.1	84.5	0.6
2	86.9	86.9	0.0
3	86.1	86.3	—0.2
4	85.9	85.4	0.5
5	88.0	88.2	—0.2
6	83.6	83.5	0.1
7	73.4	73.9	—0.5
8	74.2	73.6	0.6
9	83.2	82.6	0.6
10	82.3	82.1	0.2

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Toxicity of Strobane

By Dr. Herman A. Shelanski and Dr. M. V. Shelanski*

Industrial Toxicological Laboratories, Inc., Philadelphia

THE economic importance of suitable insecticides has increased considerably during the past decade. This report is concerned with toxicity studies on a new insecticide, "Strobane,"** which is an isomerized chlorinated terpene.

The toxicity studies included oral administration, percutaneous absorption, and aerosol inhalation. These studies were carried out by acute or single dose administration, and by subacute or multiple dose administration.

I. Acute Oral Toxicity Studies:

A solution was prepared containing five percent Strobane in corn oil (w/v). White rats and guinea pigs were used. The material was administered directly into the stomachs of the animals by means of a stomach tube. The results were as follows:

White Rats:

LD-0 1.5 cc/kg. or 75 mgm. of Strobane/kg.

LD-50 4.0 cc/kg. or 200 mgm. of Strobane/kg.

LD-100 7.0 cc/kg. or 350 mgm. of Strobane/kg.

Guinea Pigs:

LD-0 2 cc/kg. or 100 mgm. of Strobane/kg.

LD-50 5 cc/kg. or 250 mgm. of Strobane/kg.

LD-100 8 cc/kg. or 400 mgm. of Strobane/kg.

II. Acute Aerosol Toxicity Studies:

10 white rats were exposed for a period of 10 seconds every 10 minutes to a stream of aerosol Strobane. The vapor was allowed to remain for a total of nine minutes. The remaining one minute was used for exhausting the chamber and replacing with fresh air. This was continued for a period of eight hours. The rats were then put back into their regular cages, fed and observed. Precautions were taken to insure an adequate supply of air in the chamber during the course of the installation of the aerosol vapor. By means of weighed absorbent paper placed on the bottom of the chamber, changes in the concentration of the vapor due to settling were determined during a 10 minute interval. Calculations showed that settling removed about 20 percent of the spray during that interval and an equal amount was lost by condensation on the walls of the chamber. Therefore, the rats were exposed to an average concentration of about 75 percent of the total originally sprayed. This corresponds to a permanent eight-hour vapor exposure of 20 mgm. per cubic foot of Strobane. This concentration is almost one thousand times as great as that advised in the use of aerosol insecticides now on the market.

To determine the effect of higher concentrations, 10 rats were exposed in a cylindrical chamber, measuring 30" x 50", to the contents of an entire can released over a period of ten minutes. The chamber door was closed for one hour.

Results showed that the only evident deviation from normal was an initial lack of interest in food and water lasting for 48 hours after exposure.

III. Acute Skin Absorption Toxicity Studies:

Eight groups of five albino rabbits were used in this test. Each animal was prepared by clipping off the hair from the back to approximate an area of 10 percent of the body surface. To these areas were applied increasing quantities of solutions as described below. The exposed areas were then covered with an impervious film which was held snugly in place by wide bands of adhesive tape circumscribing the entire animal. These areas were kept covered for a period of one week. The results were as follows:

Group I

Five albino rabbits were exposed to a concentration of two cc. of Strobane per kilogram of body weight. All these animals survived. On removal of the bandage after a week, the skin showed some degree of ulceration and inflammation.

Group II

Five albino rabbits were exposed to three cc. of Strobane per kilogram of body weight. All these animals survived. On removal of the bandage after a week, the skin showed some degree of ulceration and inflammation.

Group III

Five albino rabbits were exposed to a concentration of four cc. of Strobane per kilogram of body weight. All these animals survived. On removal of the bandage after a week, the skin showed some degree of ulceration and inflammation.

Group IV

Five albino rabbits were exposed to a concentration of five cc. of Strobane per kilogram of body weight. All these animals survived. On removal of the bandage after a week, the skin showed some degree of ulceration and inflammation.

Group V

Five albino rabbits were exposed to a concentration of five cc. of Ultrasene per kilogram of body weight. All these animals survived. On removal of the bandage after a week, the skin showed some degree of ulceration and inflammation.

Group VI

Five albino rabbits were ex-

*Paper presented at 39th mid-year meeting C.S.M.A., Chicago, May 19, 1953.

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posed to five cc. of a solution containing five percent w/v of Strobane in Ultrasene. All these animals survived. On removal of the bandage after a week, the skin showed some degree of ulceration and inflammation.

Group VII

Five albino rabbits were exposed to five cc. per kilogram of weight to Sonneborn Oil #51. All the animals survived. There was no skin damage.

Group VIII

Five albino rabbits were exposed to five cc. per kilogram of weight to a solution containing five percent of Strobane in Sonneborn Oil #51. All animals survived. There was no skin damage.

IV. Six Months' Chronic Feeding Toxicity Studies:

Three groups of rats were fed increasing concentrations of Strobane in the diet. One group was used as a control. The Strobane was prepared as a five percent w/v solution in corn oil, and the concentrations in each group were as follows:

Group I—received daily in the diet an amount equal to 1/20th of the LD-0 per animal per day, or 50 ppm of the diet.

Group II—received 1/10th of the LD-0 per animal per day, or 100 ppm of the diet.

Group III—received ½ of the LD-0 per animal per day, or 500 ppm of the diet.

Group IV—Control—received the regular diet without Strobane.

Weekly weights were taken of each rat and the diets were adjusted accordingly. Five animals in each group were autopsied at the end of two months, four months, and six months.

Results: The average weights of the animals with Strobane in the diet showed a normal weight increase as compared with the control group. There was no gross pathology or consistent major histopathology present in the animals autopsied which could be attributed to experimental procedure.

V. Chronic Aerosol Exposure Studies:

Three groups of rats were exposed for six hours every day for over four months to an aerosol Strobane solution. The exposures in each group were as follows:

Group I. 100 grams of aerosol were sprayed into a chamber 12 cubic feet, containing 30 animals. This corresponds to 2.5 grams of Strobane per 12 cubic feet.

Group II. 50 grams of aerosol were sprayed into a chamber. This corresponds to 1.25 grams of Strobane per 12 cubic feet.

Group III. 25 grams of aerosol were sprayed into a chamber. This corresponds to 0.62 grams of Strobane per 12 cubic feet.

The concentrations of Strobane obtained in the experimental chambers calculated for a small room measuring 10′ x 10′ x 10′ correspond to a total of 75 cans per day of Strobane aerosol for the high dosage, 37.5 cans daily for the intermediate dosage, and 18.75 cans daily for the low dosage.

Weekly weight records of each animal were recorded. Five animals in each group were autopsied at the end of two months, four months, and six months. The results are as follows: Average weight increases in the experimental groups were normal as compared with the control group. There was no gross pathology or consistent major histopathology which can be attributed to experimental procedure found in the animals studied.

VI. Subacute Percutaneous Studies:

Three groups of 10 rabbits each were used in this study. The hair was clipped from the backs of each animal to expose approximately 10 percent of the total body area. To these exposed areas the solutions were applied as follows:

Group I—one cc/kg. of a one percent solution of Strobane in white oil, w/v.

Group II—two cc/kg. of a one percent solution w/v of Strobane in white oil.

Group III—four cc/kg. of white oil used as a control.

The solutions were applied daily five days per week for 90 days. The average weights of each animal were recorded weekly and the dosages adjusted accordingly. All animals which died were autopsied. In addition, five animals in each group were sacrificed for autopsy at the end of the 90 day period.

Results are as follows: The average weight gain in Groups I and II was greater than that of the control animals.

Mortality Records:

Group I—None died.

Group II—Two died; one at the end of seven doses and one at the end of 35 doses.

Group III—Four died; one at the end of seven doses, one at the end of 22 doses, one at the end of 23 doses, and one at the end of 24 doses.

The major gross pathology noted was the dermatitis which was present to a lesser degree in the control animals than in the Strobane treated animals. Epithelial hyperplasia was a pronounced feature of Group II. No other consistent major histopathology which could be attributed to experimental procedure was noted.

VII. Lethal Percutaneous Studies:

A. Five percent Strobane in Corn Oil:

Four groups of 15 albino rabbits each were used in this investigation. Approximately 10 percent of the total body area of each animal was clipped to expose the skin. It was to this exposed area that the test solutions of five percent Strobane in corn oil were applied daily. The four groups of rabbits were treated as follows:

Group I—one cc/kg. of five percent Strobane in corn oil.

Group II—two cc/kg. of five percent Strobane in corn oil.

Group III—four cc/kg. of five percent Strobane in corn oil.

Group IV—Control group—four cc/kg. of corn oil. Each group received four applications of the solutions studied. The dosages were discontinued because all the rabbits developed pre-convulsive states. All the rabbits were then observed for a period of two weeks to see the effect of the materials on the animals. All animals which died were autopsied for gross and histopathological studies.

The results were as follows:

All the rabbits showed signs of irritability and pre-convulsive states. The rabbits threw themselves around the cages and sustained injury there-

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from. Mortality occurred as follows:

In Group I, receiving one cc/kg. of five percent Strobane in corn oil, seven of the 15 rabbits died; one animal died two days after the final dose; one died four days after, one died five days after, one died 12 days after and three died 16 days after the final dose.

In Group II, receiving two cc/kg. of five percent Strobane in corn oil, eight of 15 animals died; one died after the second dose; one after the third dose; one each died on the fourth, eleventh, thirteenth, nineteenth, twenty-eighth and thirtieth day after the fourth and final dose.

In Group III, receiving four cc/kg. of five percent Strobane in corn oil, 12 of the 15 rabbits died; two died two days after the final dose; one died three days after; two died four days after; five died five days after; one died 15 days after, and one died 34 days after the final dose.

In Group IV, the control group receiving four cc/kg. of corn oil, nine of the 15 animals died; two died in two days after the fourth and final dose, two died four days after; one died after five days; two died seven days after, and two died 12 days after the final dose.

There was no gross pathology present. There was no consistent pathological change that could be attributed to experimental procedure. Pulmonary congestions and other visceral congestion may be associated with an encephalopathy and be the cause. The drug in most instances produced convulsive seizures. It is possible that the convulsive seizures are the cause of death.

Pathological studies were also made of the brain and spinal cords of rabbits receiving four cc/kg. of five percent Strobane in corn oil and showed mild encephalopathy.

B. Five percent Strobane in Other Solvents:

Five percent w/v solutions of Strobane in white oil, paraffin oil, Ultrasene and deobase were used to dose albino rabbits. The materials were applied daily to the clipped backs of the rabbits as described above.

It was found that at doses of one cc/kg., two cc/kg., and four cc/kg. of body weight, that the rabbits did not survive. Those receiving one cc/kg. of five percent Strobane in the various solvents were dosed daily until death, which occurred in all animals within three weeks. Of those receiving two cc/kg., all were dosed daily and died within 17 days. Those receiving four cc/kg. were given only two doses; over 50 percent mortality occurred.

Animals which died were autopsied and tissues were taken for histopathological studies. Results showed that there was no difference in the pathology obtained with Strobane in various solvents as compared to Strobane in corn oil.

Summary

1. Acute oral toxicity studies indicate that Strobane in dosages over 75 mgm/kg. is toxic.

2. Acute aerosol toxicity studies indicate that in the concentrations reported, Strobane may be considered non-toxic.

3. Acute percutaneous toxicity studies indicate that Strobane, in the concentrations reported, may be considered non-toxic.

4. Six-month chronic feeding toxicity studies indicate that Strobane, up to 500 ppm in the diet may be considered non-toxic.

5. Chronic aerosol exposure studies indicate that Strobane, in the concentrations reported, may be considered non-toxic.

6. Subacute percutaneous studies indicate that Strobane at the one cc/kg. and two cc/kg. level in one percent solutions in white oil, may be considered non-toxic.

7. Strobane in corn oil, white oil, paraffin oil, Ultrasene, and deobase in five percent solutions at the one cc/kg., two cc/kg., and four cc/kg. levels, is to be considered toxic on repeated application.

Conclusion:

IT IS apparent from the above report that the Strobane ingested in quantities over 75 mgm/kg. of body weight in single doses, is toxic. However, Strobane in concentrations up to 500 ppm fed in the diet, may be considered non-toxic on chronic ingestion. This is typical of chlorinated terpenes, where small quantities may be toxic in single doses but smaller quantities approaching the LD-0 may be fed chronically over considerable periods of time. This indicates that the material is not accumulative in its action.

Strobane may be used safely in contact with the skin in small quantities of one cc/kg. and two cc/kg. of a one percent solution in white oil repeatedly. However, the same dosages in white oil or other solvents of a five percent solution of Strobane produces typical clonic convulsions on repeated application. These convulsions are the result of an encephalopathy which is reversible.

Chronic exposures to aerosols containing five percent Strobane can be used over a considerable period of time in concentrations far beyond that which would be encountered in normal usage. Therefore, Strobane may be used safely in the concentrations reported above, for uses recommended by the manufacturer.

Shellac . . .

(*From Page* 127)

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Economics . . .

(*From Page* 35)

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mulate a whole multitude of facts. Some are used directly as a means of obtaining business. In any case, the rate of growth of Economic Laboratories, Inc., has been in direct proportion to the amount of information available to top management.

Field Testing

(*From Page* 115)

quaternary ammonium-bromophenol blue salt is dependent upon the molecular weight of the quaternary ammonium compound. Three of the most widely used quaternary ammonium germicides are alkyl dimethylbenzyl ammonium chloride, alkylbenzyltrimethyl ammonium chloride, and alkylmethylbenzyltrimethyl ammonium chloride having molecular weights of approximately 358, 360, and 375, respectively. Colors developed by the bromophenol blue salts of these three germicides are so close as to appear identical by visual observation. In the course of the present work, color glass standards were prepared by Mr. Hellige to differentiate between 150 ppm, 200 ppm, and 250 ppm alkylbenzyltrimethyl ammonium chloride. These color glasses can also be used with the other two types of quaternary ammonium germicides named above. Applicable color glasses can be easily prepared for use with quaternary ammonium germicides of different molecular weight such as p-tert-octylphenyldiethyl dimethylbenzyl ammonium chloride monohydrate which has a molecular weight of 465.5. Color glass standards can also be designed for determination of quaternary ammonium germicide concentrations outside the 150 ppm to 250 ppm range.

This new field test method for quaternary ammonium germicides has been tested in a variety of sanitizing solutions with excellent results. However, the full value of the method cannot be known until it has been extensively used in the field under a variety of conditions. The procedure is simple and requires no knowledge of special techniques to be accurately carried out. It can be used by untrained personnel and offers a rapid means for checking, at the point of use, the germicidal strength of quaternary ammonium sanitizing solutions.

Acknowledgment

THE author wishes to express his appreciation to H. C. Hellige, Hellige Inc., and to H. D. DuBois and E. D. Noble, California Research Corp., for their assistance during the course of this work.

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Fly Control

(*From Page* 114)

overcrowded stock pens, remained moist and favorable for excessive housefly breeding. Field observations in previous years have also demonstrated that apparent insecticide failures were directly proportional to climatic conditions optimum for fly breeding. Within the area of this study, fly resistance was not a satisfactory blanket explanation for unsatisfactory control, while an overwhelming fly breeding potential appeared to be a more logical explanation than insecticide failure.

Sanitation Helps Control

SANITATION alone is not the single, economical means by which satisfactory housefly control may be attained. But it is equally apparent to the writer that without an adequate sanitation program, satisfactory fly control cannot be accomplished by any of the insecticides or mechanical devices for their application now available to us. With reasonably good sanitation practices, the writer has concluded by this and similar previous field studies that most of our insecticides are adequate and effective. By determining and emphasizing the principal sanitation faults peculiar to the farms of a specific area, we may well accomplish better and more economical control than by the never ending search for a newer and better insecticide or mechanical means for its application.

Actamer . . .

(*From Page* 44)

5) There is some uncertainty as to whether increased iodine value of the soap oils will decrease the effectiveness of bithionol. Figure 9 shows a graph of the percent decrease in bacteria count versus the iodine value of the soap oils. From this graph it would seem wise to use "Actamer" in soaps in which the iodine value of the soap oils is no greater than 60 in order to insure a bacteria count reduction of 90 percent or more. Coconut oil soaps give the best results in this respect when "Actamer" is employed.
6) It should be borne in mind that each subject washed only 27 times with "Actamer" soap during the tests and not at all on the Saturday and Sunday between the first and second week. It would seem, therefore, that if the subject used an "Actamer" soap exclusively for all washing purposes that even greater bacteria count reductions would be obtained.

Conclusions:

"Actamer" bithionol has been evaluated in various liquid hand soaps and found to have remarkable antiseptic properties with little or no tendency to cause skin irritation.

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Hoffman . . .

(*From Page* 121)

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Branch Store Operation

MANY years ago, Mr. Hoffman realized the importance of branch store operation. Atlantic City, N. J., as a famous resort, was and is a very fertile area because of its large number of hotels, restaurants and other users of sanitary supplies. Mr. Hoffman felt that by opening a branch in Atlantic City more business could be obtained than by having his salesmen make occasional calls. So he opened a branch office which has been operating very successfully since.

A similar operation was opened in Reading, Pa., and its functions are identical to those of the Atlantic City branch. Each branch has two salesmen covering the area. They also keep a large stock of supplies on hand. In the Reading branch, the bulky and heavy materials are kept in a separate warehouse. This eliminates the need at the branch for a second truck and driver, a warehouseman and other details involved when supplies have to be stocked and delivered.

"F. W.," as Mr. Hoffman is called by his staff, started out in the supply business at the age of 21. He mailed away a coupon with five dollars and in return received a case of brushes to sell on a door-to-door basis. Studying all the sales literature supplied by the manufacturer, he sold his case of brushes and decided to keep on going. In a short while, he had a dozen women selling brushes for him on a door-to-door basis, and this was the start of his growth in this field.

Soon afterwards, he saw that the "large" sales were made to building superintendents and business establishments, so he opened a small office in mid-town Philadelphia. From this humble start came the larger offices and additional salesmen. In 1914 Mr. Hoffman moved into the building that he presently occupies. It is a four story and basement building. But even this has been outgrown, and an additional warehouse has been acquired.

"There is no secret in building this business," says Mr. Hoffman, "only knowing your products and being so well sold on them that you can sell them to any prospect. That is the reason why we are so careful to train our salesmen, as they have to be sold on our products first. By sticking to your business, keeping after your customers and plugging away, the business will grow. And the success of our business is the proof of the soundness and a tribute to that policy."

—— ♦ ——

New CSC Directors

Election of Abbott K. Hamilton, vice-president of product divisions, and Sydney T. Ellis, administrative vice-president, to the board of directors, Commercial Solvents Corp., New York, was announced recently by J. Albert Woods, president. Mr. Hamilton joined Commercial Solvents in 1947 when the company acquired the Pennsylvania Alcohol and Chemical Corp., of which he was vice-president and managing director. Mr. Ellis, a chemical engineer, has had primary responsibilities in connection with the firm's long range expansion and development program.

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Arizona Names Spruance

Appointment of H. Douglas Spruance as technical sales representative for the mid-west was announced recently by A. Scharwachter, vice-president and general sales manager, Arizona Chemical Co. division, American Cyanamid Co., New York. Mr. Spruance, whose headquarters are in Chicago, services customers in Michigan, Illinois, Minnesota, Wisconsin, Iowa and Missouri. He has spent the last seven years at the Linden, N. J., research laboratory doing application and sales service work on tall oil products as applied to alkyd resins, oleoresinous varnishes and paints, core oils, esters and soaps.

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Naval Stores Report

The 1952-1953 annual naval stores report on the production, distribution, consumption and stocks of rosin and pine oil was published recently by the U. S. Department of Agriculture, Washington, D. C. Industrial consumption of rosin for the insecticide and disinfectants industries dropped from 2,070 drums (520 lbs. net,) for the period of from April 1, 1951 to March 31, 1952 to 1,966 drums in 1952-53. Soap rosin use in 1951-52 crop year was 57,893 drums, compared with a 1952-53 total of 46,462. Rosin for shoe polish and shoe material for the year 1951-52 was 4,871 drums, compared with 4,128 drums in 1952-53.

Production of pine oil, calculated in barrels of 50 gallons, from April 1, 1951 to March 31, 1952 was 174,510 barrels, compared with 145,610 barrels in the 1952-53 crop year. Stocks on hand on March 31, 1952 were 17,520 barrels compared with 12,070 barrels on the same date in 1953.

There's a
Namico
soap or detergent that's just right for you . . .

. . . and NAMICO technical experts will be glad to help you select the "right one" for your needs.

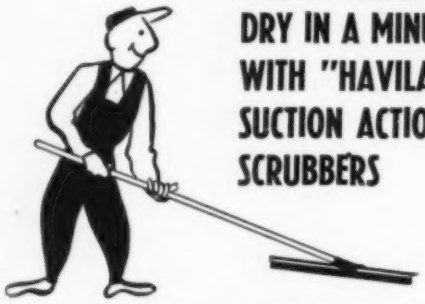
Selected from a complete line of dish-washing compounds, the five listed here are outstanding for quality and value.

- SURE SUDS
- PROTEXAL
- "447" DISH AND GLASS CLEANER
- CHAMPION (Machine Use)
- DELUXE (Machine Use)

WRITE FOR CATALOGUE

National Milling & Chemical Co.
Industrial Soap Products Since 1896
4603 NIXON STREET, PHILADELPHIA 27, PA.

THESE FLOORS ARE DRY IN A MINUTE WITH "HAVILAND" SUCTION ACTION SCRUBBERS



The suction action of the HAVILAND Neoprene Scrubber actually pulls water right out of troublesome cracks . . . dries floors in NO time.

Suction action means a quicker, cleaner, dryer job for the user . . . saves time for him between scrubbing and waxing. Order this easy to sell item now or write for HAVILAND'S catalog of better products at competing price.

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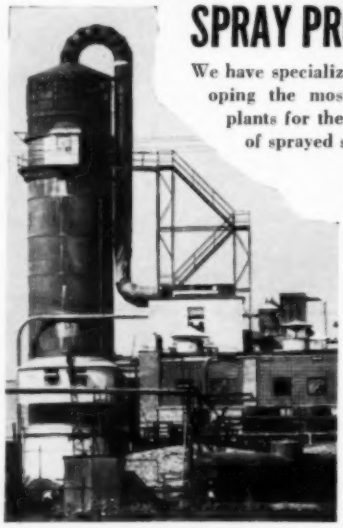
1810 CHOUTEAU AVE. • ST. LOUIS 3, MO.

This Job is a Cinch with Haviland Regular Floor Squeegees

LET WURSTER & SANGER
design and engineer your
SPRAY PROCESS PLANT



We have specialized for 30 years in developing the most modern and efficient plants for the production of all types of sprayed soap and synthetic detergent products.

Our services can be arranged to suit your specific requirements. For instance . . .

We can design and supply all the equipment required for a complete plant.

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We can supply special pieces of equipment plus engineering specifications enabling you to build the plant yourselves.

WRITE FOR BULLETIN NO. 23

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Contracting Chemical Engineers Consulting
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CHICAGO 15, ILLINOIS

News

Dempsey Joins Lehn & Fink

Edmond J. Dempsey, formerly manager of manufacturing for the Calco Chemical Division of American

EDMOND J. DEMPSEY

Cyanamid Co., New York, has been named general manager of manufacturing for Lehn & Fink Products, Inc., New York, it was announced recently by Edward Plaut, president. Before joining American Cyanamid, he was general manager of manufacturing for Dominion Rubber Co. in Canada and plant superintendent of Bourne Rubber Co., Providence, R. I.

Heads Puritan Research

The appointment of Dr. Robert H. Jones as technical director of Puritan Chemical Co., Atlanta, was announced recently by A. L. Feldman, president. In addition to heading its research and development laboratory, Dr. Jones is acting as an advisor on merchandising and expansion of Puritan's product line.

Prior to joining Puritan, Dr. Jones was head of the organic chemical section in the Chauncey, N. Y., research laboratories of Stauffer Chemical Co. Dr. Jones received his M.S. and Ph.D. in chemistry at the University of Wisconsin, having earlier received a B.S. from the University of Illinois. He was employed as a research chemist for Standard Oil Development Co. from 1948 to 1951. During World War II he served four years as a commissioned officer in the Army Chemical Corps and Corps of Engineers, attaining the rank of major.

At the same time, Puritan announced that its research laboratories and office buildings are to be completely renovated and expanded.

Palmer Joins Watkins

John Palmer has been appointed chief chemist and production manager of the J. R. Watkins Co. plant at Memphis, Tenn., according to a recent report from the home office of the Watkins company at Winona, Minn. Mr. Palmer took over his new position on June 1. He was formerly associated for about ten years with The Ward Co. of Winona, Minn. This latter company is now being liquidated after many years in the manufacture and door-to-door selling of household specialty products.

Vestal Names Wilson

Dr. Cyril D. Wilson, formerly assistant director of research, Heyden Chemical Corp., Garfield, N. J., was recently appointed research director of Vestal Laboratories, Inc., St. Louis. He succeeds Martin J. Maglio, who resigned recently and joined F. J. Carlin in the formation of Fort Worth Laboratories, Lake Worth, Fla. The new firm is associated with Worth Paint and Chemical Co., which specializes in the manufacture of paints.

Leland B. Norton Dies

Leland Bernard Norton, 43, professor of insecticidal chemistry in the department of entomology of Cornell University, Ithaca, N. Y., died recently at his home.

Gail E. Barr Dies

Gail E. Barr, 56, superintendent of the Natrona, Pa., plant of Pennsylvania Salt Manufacturing Co., Philadelphia, died recently at his home in Freeport, Pa. Mr. Barr, who joined Pennsalt in 1912, first worked in the Natrona plant laboratory. He later became a process supervisor; a production supervisor, and in 1948 was appointed superintendent.

P.I.C. Names O'Rourke

Appointment of Lawrence R. O'Rourke as a sales executive was announced recently by Pennsylvania In-

LAWRENCE R. O'ROURKE

dustrial Chemical Corp., Clairton, Penna. His headquarters are at the company's plant in Chester, Pa. Prior to his new appointment, he had been associated with Falk & Co., Pittsburgh, for 15 years. He is a graduate of Fordham University.

Appeals F.T.C. Ban

A petition for review of the Federal Trade Commission's cease and desist order against Bostwick Laboratories, Inc., Bridgeport, Conn., has recently been filed by the company in the U. S. Court of Appeals for the Second District (New York). The F.T.C. order required the company to stop making advertising claims that "Bostwick Super-Aerosol Insect Killer" kills all crawling insects and kills them faster than other insecticides now on the market.

Boyle Aerosol Folder

Boyle - Midway, Inc., New York, has recently released a folder entitled "Aerosol-The Modern Packaging," which describes the principal reasons why pressurized aerosol containers have had such an expanded growth since World War II. Copies are available on request to American Home Products Corp., New York.

USI's Allethrin Plant Reaches Capacity

FULL scale production of allethrin at its Baltimore plant, was announced recently by U. S. Industrial Chemicals Co., Division of National Distillers Products Corp., New York. W. P. Marsh, Jr., president of the company, revealed that USI's new Baltimore plant, the first integrated allethrin plant in the world, has already reached rated capacity. The plant began operations last fall after the commercial adaptation of the allethrin principle discovered in 1949 by scientists of the U. S. Department of Agriculture. Mr. Marsh spoke at the first public inspection of the complicated engineering and chemical operation necessary for the duplication of some of the merits of pyrethrins. Those making the inspection included representatives of the U. S. Departments of Agriculture and Defense.

Calling allethrin "an important defense item," Mr. Marsh said that its present use in supplying the insecticide needs of the Armed Forces "provides compelling evidence of our faith in the future of allethrin for other than military uses. In the case of necessity, allethrin can be used effectively for nearly all the purposes for which pyrethrum would normally be employed," Mr. Marsh said. "It is made from raw materials readily available in the U. S. in any necessary quantities. Ample supplies of allethrin will be available to the Armed Forces with no dependence on foreign sources of supply."

Dr. F. B. LaForge and Dr. M. S. Schechter, of the Bureau of Entomology and Plant Quarantine, USDA, who are accredited with the successful synthesis of allethrin, were present for the inspection trip. Before the synthetic could be developed, Dr. LaForge spent years in identifying the active principles of pyrethrins.

Referring to the fact that allethrin is serving as a supplement for pyrethrins, which he said was not only the oldest known but "the real miracle insecticide," Mr. Russell B. Stoddard, coordinator of U.S.I.'s insecticide operations, stated that pyrethrum flowers have never been a simple crop to grow or a simple product to handle. These conditions have made supplies uncertain and brought sharp price fluctuations, making large scale programs of development difficult.

"Allethrin is not perfect but it does possess most of the major virtues which have made pyrethrum so outstanding," he said. "Most important of all, it is being produced in fully adequate amounts to meet any current requirements. The last eight years have seen a vast amount of confused and heated controversy regarding the possible hazards of toxicity of newer insecticides to humans," Mr. Stoddard added. "To a large degree, this has arisen because of well-meant attempts to use inherently toxic or doubtful materials in fields involving humans and animals, and in which, consequently, the utmost freedom from toxic hazards is of vital necessity. This has been partly excused by the claim that completely safe materials have not been sufficiently available."

"Now the situation has radically changed. Considering allethrin as a supplement to pyrethrum, and bearing in mind that allethrin can be made in any needed amounts, it can be said without exaggeration that supply problems no longer exist."

W. P. Marsh, Jr., president of U. S. Industrial Chemicals Co., New York, is shown flanked by Dr. F. B. LaForge (right) and Dr. M. S. Schecter, of the Bureau of Entomology and Plant Quarantine, USDA, during a recent inspection of USI's new integrated allethrin plant at Baltimore. The two entomologists are credited with the successful synthesis of allethrin.

Represent Hollingshead

R. M. Hollingshead Corp., Camden, N. J., recently announced the appointment of two new representatives for the West Coast and the Texas-Oklahoma area. E. P. Gilsdorf Co., 406 Brannan St., San Francisco, is the new distributor of the firm's sanitary maintenance products on the West Coast. R. G. Brandes Co., Houston, represents the company in the Texas-Oklahoma area on the sale of bulk units of aviation chemicals to the southwest aviation industries. Brandes also handles the sale of Cocoon products in that territory.

New Ceramic Restorer

A new folder on "Emac," a compound for cleaning, sanitizing and restoring porcelain and ceramic surfaces, has recently been announced by Mach Chemical Co., Mountainview, N. J. The folder describes the proper amounts and methods to use for domestic and commercial cleaning.

Monsanto Ups Morris, Marsh

Appointment of Robert M. Morris as production manager of the organic chemicals division effective September was announced recently by John L. Gillis, vice-president and divisional general manager, Monsanto Chemical Co., St. Louis. At the same time, it was announced that Paul G. Marsh will become associate production manager. Both men are graduates of Washington University. Mr. Morris joined Monsanto in 1936, and Mr. Marsh has been with Monsanto since 1923.

Carboline Names Fiebach

Appointment of Seymour J. Fiebach as sales engineer in the metropolitan New York area was announced by Carboline Co., St. Louis. Mr. Fiebach has sold industrial chemicals in the area since 1948 and was previously an instructor of chemistry at Brooklyn College.

Honor Two Supply Men

J. R. Brame of Brame Specialty Co., a sanitary supply firm at Durham, N. C., is completing a year's service as president of the North Carolina Junior Chamber of Commerce. At LaCrosse, Wis., Gordon H. Feinberg, a partner in Sanitary Supply Co., has been reelected to his sixth term as executive secretary of the LaCrosse Business Men's Club. Both men are members of National Sanitary Supply Association.

Fla. Pesticide Bill

A bill requiring the annual registration of pesticides manufactured, sold or transported in Florida, was passed recently by the State General Assembly and sent to the Governor. The act sets up strict regulations for the industry. Pesticides would have to bear the name and address of the manufacturer or registrant, name of brand or trademark, and be labeled to show the net weight of the contents. Highly toxic pesticides would also have to bear labels showing the skull and crossbones and a statement of an antidote. In addition the word "poison" would have to be displayed prominently, in red, on a contrasting background. It would be unlawful for anyone to deface, change or remove the labels.

Penick Acquires Drug Stock

S. B. Penick & Co., New York has taken over inventories and certain other assets of the 63 year old firm of J. L. Hopkins & Co., Brooklyn, which recently announced liquidation of its business. Among the reasons cited for its discontinuance were "the risky character of the business, including highly technical problems of quality which in turn meant the maintenance of a substantial scientific staff in a field of business that could not provide for such facilities in the margin of profit."

Veazey Retires from Dow

Retirement of Dr. William R. Veazey from his research and administrative activities and as a member of

DR. W. R. VEAZEY

H. D. DOAN

the board of directors was announced recently by Dow Chemical Co., Midland, Mich. Concurrently the company announced it had increased the membership of its board of directors from 14 to 15 and elected Herbert D. Doan and Herbert H. Dow II as new members. Mr. Doan is a son of the president and Mr. Dow is a son of the late

D. WILLIAMS

H. H. DOW

Dr. and Mrs. Willard H. Dow. The firm also announced the appointment of three new vice-presidents, Dr. Ray H. Boundy, a Dow director, and director of research for the company since 1952; Donald Williams, director of sales since 1949, and Dr. J. D. Hanawalt, manager of the magnesium department since 1946.

DR. R. H. BOUNDY

DR. J. D. HANAWALT

New Schneid Catalog

A new catalog of building maintenance and sanitary supplies has recently been released by I. Schneid, Inc., Atlanta. The catalog illustrates and describes the full line of waxes, para deodorants, soap and sanitary chemicals manufactured by Schneid for the jobbing trade. Printed in loose leaf form, the pages are 8½" x 11" size designed to fit most jobbers' catalogs. Thus, any or all of the pages may be inserted in the jobbers present collection of selling literature or his information may be inserted within the covers of the Schneid catalog. The firm, which is celebrating its fifth anniversary, will send free copies of the catalog on request. Write to I. Schneid, Inc., 916 Ashby St., N. W., Atlanta.

United Metal Names Siegel

Appointment of Milton Siegel of Baltimore as manufacturers representative for Pennsylvania (west of Philadelphia), West Virginia and Virginia, was announced recently by United Metal Box Co., New York. The company manufactures swing-top waste receptacles and cabinets.

Van Horne in New Post

Appointment of James G. Van Horne, Jr. as sales manager, boxboard, American Coating Mills division of Robert Gair Co., New York, was announced recently by J. C. Hendricks, general sales manager of the folding carton division. Mr. Van Horne is continuing to make his headquarters at the Elkhart, Ind., plant.

New R & H Insecticide

A new agricultural insecticide, known as "Perthane," has recently been introduced by Rohm & Haas Co., Philadelphia. The material, described as a technical grade of 1,1-dichloro - 2,2 - bis (para - ethylphenyl) ethane, is said to be of extremely low toxicity. The company plans to market the technical material to manufacturers, as a dust base to formulators for the preparation of finished dusts, and a wettable powder and emulsion concentrate to distributors. The price of the technical grade has been tentatively set at 60 cents a pound.

SEIL, PUTT & RUSBY, INC.

Analytical and Research Chemists

For over thirty years we have specialized in the analysis of pyrethrum, rotenone and other

ORGANIC INSECTICIDES

It has been our privilege to make many analyses for government agencies and most leading importers and manufacturers in the insecticide field.

We are also making frequent analyses of the synthetic insecticides, such as D.D.T., B.H.C., Chlordane, Toxaphene, Heptachlor, Allethrin, etc., etc.

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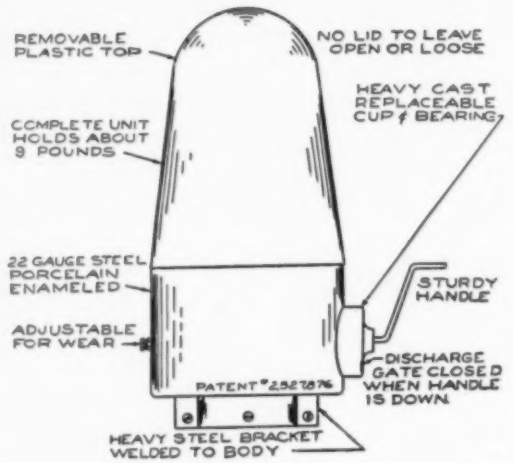
REMOVABLE PLASTIC TOP
NO LID TO LEAVE OPEN OR LOOSE
HEAVY CAST REPLACEABLE CUP & BEARING
COMPLETE UNIT HOLDS ABOUT 9 POUNDS
22 GAUGE STEEL PORCELAIN ENAMELED
STURDY HANDLE
ADJUSTABLE FOR WEAR
DISCHARGE GATE CLOSED WHEN HANDLE IS DOWN
PATENT #2527876
HEAVY STEEL BRACKET WELDED TO BODY

FOR MECHANICS' GRIT

EMULSION WATERLESS - CREAMS

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DIVISION SALES MANAGER

A MAJOR manufacturer of industrial granulated and powdered hand soaps, degreasers, cleaning compounds and detergents is seeking two capable men for the position of division sales manager in our Southern Division with headquarters in New Orleans, La., or vicinity; and also in our Eastern Division with headquarters in Philadelphia or the Newark area.

A record of successful past performance as a division or district sales manager or sales supervisor is a prerequisite. These unusual opportunities are the result of this company's growth and expansion program.

Basic remuneration will be salary within $7200 to $8500 range and expenses. Please reply in detail, giving complete information concerning your qualifications and personal background.

An interview will be arranged by an executive of the company at a mutually convenient time.

Address your reply to:

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Tamms

Tamms products are widely used in the polish trade, preferred for quality results. Write today for prices and samples.

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Soft Amorphous Type

Grades to meet various abrasive requirements . . . for all kinds of metal polishes.

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Rose and Cream Colors

Once-ground, double-ground and air-float . . . ideal grades for buffing and polishing. Also rubbing compounds.

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Diatomaceous Earth

Top grade, ground extremely fine . . . a milder abrasive than silica. Best for silver polish.

TAMMS BENTONITE

(Suspension Medium)

A very finely ground colloidal clay . . . wholly soluble. Absorbs five times its weight in water.

TAMMS INDUSTRIES, INC., DEPT. RM-3, 228 N. LA SALLE ST., CHICAGO 1, ILL.

Feinson Heads Magicians

Irving B. Feinson, president of American Dispenser Co., New York, was recently elected president of the

IRVING B. FEINSON

Society of American Magicians, P.A. #1. As an amateur, he has entertained servicemen and veterans in many hospitals, and others in allied organizations.

Ferdinand Sonneborn Dies

Dr. Ferdinand Sonneborn, 79, founder and president of L. Sonneborn Sons, Inc., New York, died recently at his home in New York. Born in Breitenbach, Germany, Dr. Sonneborn came to the U. S. in 1903, and with his brother, the late Sigmund Sonneborn, established the company in 1910 in Baltimore, later moving to New York. An authority on pharmaceutical and industrial derivatives of petroleum, Dr. Sonneborn purchased the Daugherty Refinery at Petrolia, Pa., where he produced petrolatum for use in cosmetics and pharmaceutical preparations and for other industrial applications. During World War I, when embargoes prohibited import of white mineral oil from Europe, Dr. Sonneborn introduced the refining of this product in the United States. Another refinery at Frankl'in, Pa., and a factory at Nutley, N. J., were purchased to produce the increasing line and volume of the company's products, which now include a wide line of industrial cleaners and detergents.

Dr. Sonneborn attended the Universities of Marburg and Munich in Germany and received his Ph.D. degree from the University of Basle, Switzerland. Last year Basle awarded him an honorary Doctor of Science degree. Surviving are his wife, Mrs. Helen Goldschmid Sonneborn, and a brother, Samuel Sonneborn.

Johnson Names Fitzgerald

The appointment of Thomas L. Fitzgerald to the position of manager of the Atlanta district was announced recently by S. C. Johnson & Son, Inc., Racine, Wis. Mr. Fitzgerald was formerly a maintenance products salesman in the company's High Point, N. C., sales district.

High Traction Floor Finish

A new water-based industrial floor finish with slip resistant qualities has recently been introduced by West Disinfecting Co., Long Island City, N. Y. Known as "Gripsheen", the new floor finish is said to give high gloss without buffing. According to the manufacturer, "Gripsheen" provides high traction on any kind of floor including terrazzo, and is said to be quick drying and easy to apply. One gallon of "Gripsheen" covers approximately 1,000 to 1,500 square feet of floor area. In addition, the product blends well with surrounding areas without showing over-lap marks, thereby permitting patching of small floor areas. The new floor finish is maintained by damp mopping.

Plunkett's Double Fete

Plunkett Chemical Co., Chicago, observed two red letter days recently, one being the 87th birthday anniversary of the founder, William Harrison Plunkett, on May 9 and the other the 50th anniversary of the firm's founding. Both occasions were celebrated in a two-day open house party May 21 and 22 for employees and guests at the plant at 3500 S. Morgan St.

Starting in 1903 with a single sanitation chemical formula, developed while Mr. Plunkett was in the carpet cleaning business, the company has grown to the point where it now manufactures a long list of products, including solvents for many cleaning purposes, deodorants, disinfectants, insecticides, liquid soaps and others. A unique feature of the business is the industrial washroom sanitizing service, performed by trained technicians with Plunkett chemicals, under contract on a yearly basis at a stipulated fee per month.

In addition to the five-story Chicago plant, the company has manufacturing plants at Paterson, N. J., and Hamilton, Ontario, and branch offices at 23 other locations. Dr. L. D. Benedict, president of the firm, had been associated with Mr. Plunkett for 20 years as a consultant before becoming actively identified with the firm as an executive in 1940. Previously he had built a large soap factory in Cuba.

Three daughters of the founder, each of whom has been with the company at least twenty years, are members of the firm's executive committee. At the May 21 reception service pins were presented to over a score of persons having been with Plunkett for many years.

Thirty salesmen and executives representing several independent supply firms attended the seventh distributor sales clinic held recently in St. Paul, Minn., by Multi-Clean Products, Inc. The group was briefed by company executives and department heads in the latest sales ideas and given a thorough grounding in the manufacturing and correct use of "Multi-Clean" products.

As New as TOMORROW

EMAC*

CERAMIC RESTORER AND SANITIZER

EMAC is a *revolutionary* new formula that restores ceramic tile floors to their *original* appearance.

EMAC *removes* stains and residues from any porcelain surface.

EMAC is not *harmful* to the user or the surface.

EMAC is a *concentrated* economical powder, one pound makes one gallon.

EMAC is a *real* door opener for Jobbers and Distributors; it works where others fail.

EMAC is available in 25—50—100 lb. drums.

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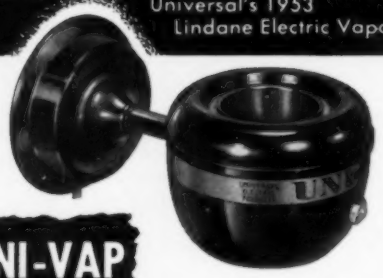
P. O. BOX 776

MOUNTAIN VIEW, NEW JERSEY

*Pats. Pending

POSITIVE Pest Control Profits for YOU!

Universal's 1953 Lindane Electric Vaporizers



UNI-VAP

Lindane has proved effective in eliminating or controlling every insect pest. Now Universal's Uni-Vap provides maximum effectiveness from Lindane with an entirely new construction feature. It's exclusive with Uni-Vap, and it assures complete vaporization at a constant rate, regardless of outside conditions. PLUS features include Chromalox heating element, Westinghouse Uni-Therm thermostat, and guaranteed long service with low maintenance. Dealers' inquiries invited.

Also manufacturers of Double-Duty Vaporizers

Universal ELECTRIC PRODUCTS

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Meet all Sanitary Requirements

. . . with these Three Bactericides and Sanitizers. They have been manufactured to comply with the varying Health Department standards thru-out the States.

Increase Sales and Repeat Orders

For Last Tank Rinse

KRYSTYL-T An odorless and tasteless Chloramine-T compound. Active bactericide, germicide, deodorizer and disinfectant. Non-irritating to the hands.

KRYSTYL-EEN A Quaternary Ammonium Sanitizer. Odorless and Tasteless.

KRYSTYL-KLEER
A Chlorinated Bactericide.

All 3 made by the makers of

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SALES REPRESENTATIVE

Sales representative covering Florida, Georgia and the Carolinas is open for an additional line preferably in veterinary, drug or agricultural products or raw materials, insecticides, stock sprays, or allied materials.

Experienced salesman with twenty years' successful selling, best personal and business record. Interested only in handling established and known line. Full exchange of references. If interested, send details of proposed arrangement to

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SOAP & SANITARY CHEMICALS

254 West 31st St. New York 1, N. Y.

Mohrman Joins Commercial

Appointment of Robert A. Mohrman to the New York sales staff of the industrial chemicals department

ROBERT A. MOHRMAN

of Commercial Solvents Corp., New York, was announced recently by W. Ward Jackson, general manager. Mr. Mohrman was formerly with the Barrett and Nitrogen Divisions of Allied Chemical & Dye Corp., New York, and Borden Co., New York. He is a graduate of Pennsylvania State College.

New Pioneer Catalog

A new catalog has recently been issued by Pioneer Chemical Associates, Denver, listing the pesticide technical materials and concentrates marketed by the company. Among the products included in the book are aldrin, aldrin-DDT, "Aramite", BHC, BHC-DDT, chlordane, DDT, dieldrin, endrin, lindane, toxaphene, sulphur, wood preservatives, weed-killers, grass-killers and brush-killers. The catalog includes Pioneer labels which give detailed warning and use instructions. Copies of the book are available on request to the company at 3035 East Colfax, Denver.

Carbide Advances Daley

Appointment of R. E. Daley as manager of consumer products department was announced recently by W. F. Reich, Jr., vice-president of Carbide and Carbon Chemicals Division, Union Carbide and Carbon Corp., New York. Mr. Daley started with Carbide in 1929 as district manager of the Washington, D. C. office. He later served as district manager in Philadelphia and New York. In 1939, Mr. Daley was made eastern division manager and in 1949 was appointed assistant sales manager of the industrial chemicals division.

Paper Towel Cabinet

A new paper towel dispenser, which features seamless cover and wrap around body, was introduced recently by Shore Metal Products Co., Los Angeles. Available in all white baked enamel, in triple plated chromium, or with chrome door and white body, the towel cabinet is constructed of 22 gauge cold rolled steel, and measures 6" x 12" x 7½".

Radiological Program

A series of short courses in radiological health will be presented next fall and winter at the Environmental Health Center in Cincinnati, the U. S. Public Health Service announced recently. These courses, two weeks in length and tuition free, are designed primarily to provide professional personnel working in health departments and other organizations with a working knowledge of the health hazards associated with radiation. Laboratory and lecture periods will be covered in basic, intermediate and advanced classes. Candidates should have a degree in medicine, engineering, or physical or biological science.

New Insect Control Device

"Fly-bye", a new automatic electric vaporizer for control of insects in commercial, institutional and industrial establishments has recently been introduced by General Manufacturing and Distributing Co., Quincy, Mich. The device plugs into any electrical outlet and contains no thermostat or moving parts. A standard 15-watt light bulb heats the insecticide to the correct temperature, releasing the vapor. One "Flye-bye" is said to be adequate to control insects in a room of 15,000 cubic feet by operating continuously. "Fly-bye" is 6½ inches high, and comes in five colors—green, maroon, ivory, blue and silver. List price, complete with supply of chemicals, is $9.95.

Beard Heads ASTM

Election of Leslie C. Beard, Jr., assistant director of Socony-Vacuum Laboratories, Socony-Vacuum Oil Co., New York, as president of the American Society for Testing Materials was announced at A.S.T.M.'s 56th annual meeting in Atlantic City, N. J., June 28-July 3.

Lyons Joins Sindar

Appointment of John R. Lyons as technical representative was announced recently by Sindar Corp., New York. A graduate of Holy Cross College, he was previously a technical representative for Pacific Chemical and Fertilizer Co., and prior to that he was analytical chemist in the quality control laboratory of U. S. Gypsum Co.

Grocery Show

(*From Page* 90)

Racine, Wis., showed their line of wax products for home and autos, including "Jubilee" kitchen wax, which came out early this year, and a cleaner and car plate wax, packaged in a combination store display and customer carrying case, which first appeared on May 15. "Pride" furniture wax is now available in a new eight ounce container, as well as the original 16 ounce bottle, J. J. Curtis, eastern area national accounts manager, announced.

Mennen Co., Morristown, N. J., presented "Mennen's Skin Bracer" and talc, along with other products.

Economics Laboratory, St. Paul, Minn., showed "Soilax," "Electrosol" and other detergents and polishes.

Oakite Products, Inc., New York, presented a newly improved "Oakite" household cleaner.

American Safety Razor Co., included soaps, toothpastes, etc. made by affiliated companies, along with its primary display of razor blades.

Cellulose sponges and mop fibers were shown by E. I. du Pont de Nemours & Co., Wilmington, Del.

American Aerovap, Inc., New York, featured its new "Bug Bulb" insecticide dispenser, along with its older Aerovap dispenser device. D. H. Christopher in charge.

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New Auto Wax

A new automobile wax that cleans as it polishes has recently been introduced by Plastone Co., Chicago. Known as "Turtle Wax", its formula contains carnauba wax, plastic, plus General Electric silicones. It is said to give a "hard shell finish" to the car's surface, leaving a protective film all in one operation. The product is being sold under an "unconditional" guarantee.

Oostermeyer Elected

Food Machinery and Chemical Corp., San Jose, Calif., recently elected Jan Oostermeyer to its board of directors. Mr. Oostermeyer's retirement as president of Shell Chemical Corp., New York, became effective June 1.

Peet-Grady Test Described

To commemorate the twenty-fifth anniversary of the development of the Peet-Grady test for insecticides, Rohm & Haas Co., Philadelphia, carried an illustrated feature article in the April-May issue of its house organ, *Rohm & Haas Reporter*. Dr. Charles H. Peet and Anthony G. Grady evolved the method when engaged in insecticide research at the Rohm & Haas Bristol research laboratory. The test was adopted by the National Association of Insecticide and Disinfectant Manufacturers (now Chemical Specialties Manufacturers Association, Inc.) in 1932 as the official method of evaluating liquid household-type insecticides. The advent of residual insecticides and the increasing use of aerosols have necessitated certain adaptations of the Peet-Grady method, which have been successfully made.

New Self-Dispenser Unit

A new self-dispensing dishwashing machine cleaning compound unit has recently been announced by Theobald Industries, Kearny, N. J. The product known as "Mercan Can-O-Matic Unit", combines two new principles: an automatic controller cover that can be regulated to dispense any amount of cleaning compound to maintain a uniform concentration of detergent in the wash tank; and a new method of formulating a compound through homogenous, hot fusing, and the pouring of the detergent itself into a can holding six pounds, where it forms into a solid. This is then used as part of the dispensing unit, as well as a shipping container, and when it has been depleted, the can is discarded and a fresh "Can-O-Matic" charge placed in operation. The manufacturer says that the unit eliminates the handling of loose powder, and the misuse and wastage that goes with it.

New Premier Vacuum

A new furnace and boiler vacuum cleaner has recently been announced by Premier Co., St. Paul, Minn. Designated "Model P-908F", the unit is said to remove ash, scale and soot thoroughly. It has a one H.P., 115 V., a-c/d-c type motor with ball-type bearings packed in lubricant. Its filter is made from woven fabric and is designed to permit a minimum of back pressure while providing 1625 square inches of filtering area. The bag has a positive locking coupling with a clamp to allow for easy cleaning. Made of heavy sheet steel with a smooth metallic gray finish, the container has a capacity of 1.04 bushels. Dimensions of the unit are: height, 32½"; width, 21¼"; tank diameter, 17". Weight is 43 lbs.; shipping weight approximately 74 lbs. Standard cleaning tools are furnished with the unit.

New Premier vacuum

Milk Sanitarians to Meet

The 40th annual meeting of the International Association of Milk and Food Sanitarians, Inc., will be held Sept. 1 to 3, at Michigan State College, East Lansing, Mich., J. H. Turney, chairman, local arrangements committee, announced recently.

Lehn & Fink War Work

Lehn & Fink Products Corp., Bloomfield, N. J., appeared in a new role recently when the Army accepted from it the five millionth "cricket" type anti-tank mine fuse made in the firm's plant. Production of fuses at Lehn & Fink's plant began during World War II.

Record Container Sales

Breaking all previous records, glass container sales for the first quarter of 1953 totaled 29.8 million gross, according to figures released recently by H. C. Herger, president of the Glass Container Manufacturers Institute.

Total shipment of glass bottles and jars for the first quarter of the current year were approximately 14 percent higher than the comparable period of 1952, and are the highest first quarter sales figure ever recorded by the industry, Mr. Herger announced.

James W. McLaughlin Dies

James William McLaughlin, 62, vice-president of Union Carbide and Carbon Corp., New York, died recently in his home in New Rochelle, N. Y. Mr. McLaughlin was graduated in 1914 from the University of Illinois. After several years with subsidiaries of Union Carbide, he went to South Charleston, W. Va., in 1927, as assistant superintendent of Carbide and Carbon Chemical Co.'s plant. Two years later he became general superintendent of the company. In 1931, Mr. McLaughlin went to New York as vice-president of the Carbide and Carbon Chemical Co., and in 1944 he was elected president of the Bakelite Co. He was elected a vice-president of the Union Carbide and Carbon Corp. in 1945 and, in 1952, was named chairman of the board of directors of the Bakelite Co.

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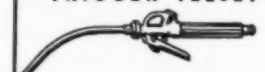

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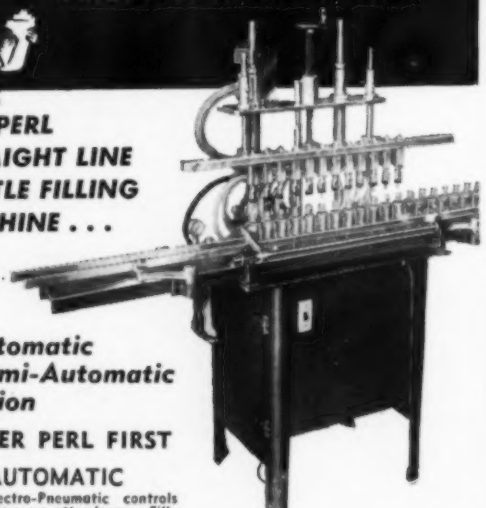

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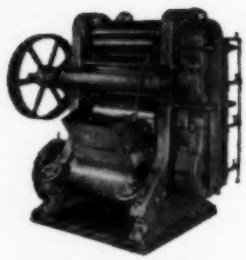

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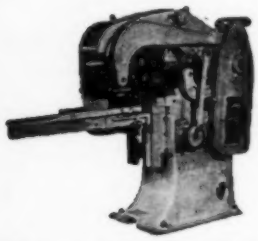

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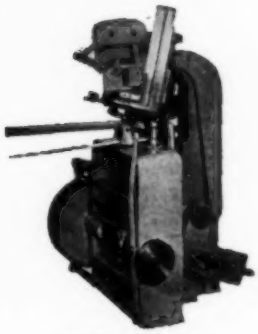

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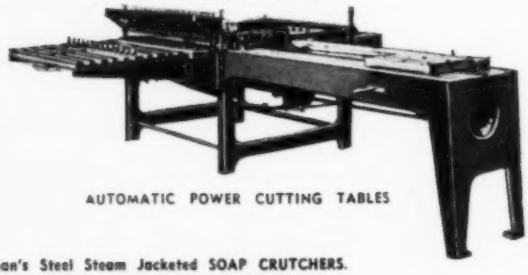

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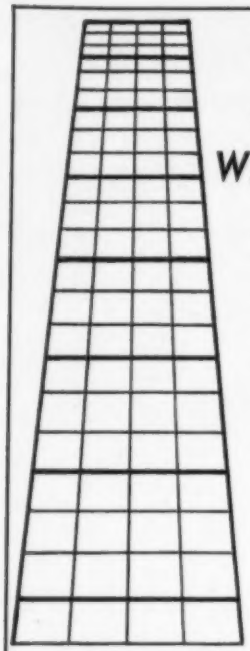

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Assistant to Sales Executive: In our opinion, Mr. Sales Executive, you will want to talk to our client, who at 32 has an unusual record in organization distribution at district level, opening new territories, promoting and merchandising new products, and conducting market tests and research. He is able to select and train field sales staffs, build distributors and dealers, develop effective sales aids, and supervise sales administration. Your replies strictly confidential. Address Box 775, c/o *Soap*.

Soap Plant Manager: Experienced superintendent or plant manager available for new connection in soap industry. Twenty years' practical soap manufacturing experience. Can take full charge. For full details, write to Box 776, c/o *Soap*.

Chemist: Household products widely experienced in waxes, polishes, lacquers, adhesives, emulsions, also automotive chemicals, desires connection with progressive firm. Metropolitan area preferred. Address Box 777, c/o *Soap*.

Soapmaker & Chemist: Competent. Having long experience in making of all kinds of soaps and cleaning compounds. Experienced chemist and glycerine recovery. Can take full charge of production. Address Box 778, c/o *Soap*.

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Wanted: Kettles, frames, pulverizers, cooling rolls, chip dryers, plodders, cutting tables, evaporators, packaging units, automatic soap presses, mixers, stainless steel tanks. Will consider idle or operating plant. P. O. Box 1351, Church St. Sta., New York 8, N. Y.

Wanted: Complete soap or sanitary chemical plants. Also individual items such as crutchers, plodders, mills, mixers, presses, dryers, filling equipment, etc. R. Gelb & Sons, Inc., State Highway No. 29, Union, N. J.

Wanted: A good used Viscolizer or homogenizer. Give make, size, condition and price. Address Box 779, c/o *Soap*.

Capital Needed: for development and marketing of a new cleaning cloth for silverware and jewelry. Rub'n'Rinse Products, 850 Locust Avenue, Charlottesville, Va.

French Territories: Wish to manufacture or expand your specialties? We are able to be your manufacturer, converter, repacker, jobber or distributor. Our plant (6,000 sq. yd.) is 70 mi. from Marseille on the Marseille-Paris railroad. Presently equipped with modern plant for pyrethrum extraction, for manufacturing insecticides, for production deionized water, for bottling and packing all liquids. In Provence zone of production French flowers, aromatic plants, fruits and vegetables, rice, sorghum, vegetables, oils. We have good sales organization and important contacts in grocery and curing fields. We wish to broaden and diversify our lines and seek connection with progressive and important firm. Corresondence possible in Italian, Spanish, German. Well suited for European organization. Address Box 780, c/o *Soap*.

For Sale

For Sale: 1—Houchin 10″ jumbo plodder; 1 — Pneumatic Scale Packaging line complete: 1—Lehmann 12″ Plodder; 1—Houchin 14″x36″ 5-roll inclined watercooled mill, 30 H.P. motor; 1—Baker 20″x33″ 5-roll mill, 55 H.P. motor; 4—Jones automatic soap presses, A, K/, E vertical, C pin die; 2 Houchin 3 roll granite mills 12x30; 2—Package Machinery Co. model TT and model N soap wrappers; 5—Steel vertical, jacketed soap crutchers, 5,000 lb., 3000 lb., and 1000 lb.; 1—6 knife soap chipper, m.d.; 1—42″ x 100″ steel flaking roll; Filter presses 12″ to 42″, powder fillers; dry powder mixers, 12,000 lb., 3000 lb. and smaller sizes; paste and liquid mixers; Rotex screens; Hammer mills; soap frames; Dopp jacketed kettles 100, 350, 600 gallon; Blackmer pumps; tanks; carton gluer-sealers. Ask us to quote on your requirements. Tell us what idle machines or plants you have for sale. Consolidated Products Co., Inc., 15-21 Park Row, New York 38, N. Y. Phone BArclay 7-0600. Inspect our stock at our warehouse, 331-341 Doremus Ave., Newark, N. J.

For Sale: By I. E. Newman, 5602 Blackstone Ave., Chicago, Ill.; Jones Automatic Laundry & Toilet Soap Presses; 1500# to 6000# Crutchers; 10″ Plodder; Automatic cutting table; Type S Wrapper; Filter Presses; Powder Mixers, etc.

For Sale: Dust cloths made of soft flannel. Chemically treated to pick up more dust and dirt. Will not harm the finest finish. Trial order $15 per 100. Parlee Corp., 308 E. St. Clair, Indianapolis 2, Ind.

For Sale: Stainless steel tanks and kettles. Steel tanks and kettles;

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Great Western A3, B6, Jumbo Sifters.
National and Lehman 3 and 5 Roll Mills; steel-granite-porcelain.
Stokes & Smith G1, G2, G6, HG88 Powder Fillers.
Pony ML and M Labelrites; Ermold and World Labelers.
Standard Knapp 429 Carton Sealer; Jones, Ceco Carton Sealers.
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Package Machinery FA, FA4; Scandia, Hayssen Wrappers.

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For Sale

(*From Page* 153)

powder mixers; pulverizers, etc. Perry Equipment Corp., 1410 N. 6th St., Philadelphia 22, Pa.

For Sale: Proctor & Schwartz 6-Fan automatic soap chip dryer, 2-roll chilling unit, large roll 48" dia. Empire State foot presses. Soap frames. Allbright-Nell 4' x 9' chilling rolls. Blanchard #14 soap powder mill. Lehmann 4-roll W. C. 12" x 36" steel mill. Houchin 8½" x 16" 3-roll and 18" x 30" 4-roll Granite Stone Mills. Kettles and tanks, iron, copper, aluminum and stainless. Dryers vac. & atmos. Jones automatic soap presses. Slabbers and cutting tables, hand & power. Crutchers. Six-knife chipper. Filter presses 12" x 42". Wrapping & sealing machines. Powder, paste & liquid mixers. Rotex sifters. Filling machines, Grinders, Hammer mills. Colloid mills. Three-roll steel mills 8" x 22" to 16" x 40". Portable elec. agitators, pumps, etc. Send for bulletin. We buy your surplus equipment. Stein Equipment Company, 107—8th St., Brooklyn 15, N. Y. STerling 8-1944.

For Sale: 1 Kent 5 roll steel mill water cooled 12 x 32 with 15 H.P. motor, $1200.00. One heavy duty Day dough mixer complete with 7½ H.P. motor with switch and control box $500.00 Sacrifice, need space. Address Box 782, c/o *Soap*.

Chemical Show in Phila.

The 24th biennial exposition of the chemical industry will be held in the Commercial Museum and Convention Hall, Philadelphia, from Nov. 30 to Dec. 5, E. K. Stevens, associate manager of International Exposition Co., announced recently.

A new refill for its insecticide vaporizers was announced recently by American Aerovap, Inc., New York. The new refill is said to contain a new ingredient, "Vapo-Aid." New No. 7 refill replaces the No. 3 unit, which has been discontinued.

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Tale Ends

FOR a long time, we wondered when somebody would come up with the word, "syndet," spelled differently but pronounced the same, as a brand name for a detergent. So, this month our gold plated doorknob goes to C. B. Dolge Co. of Westport, Conn. for the name, "Cindet," for their new, liquid all-purpose synthetic detergent. As an added touch to this new name and product, the Dolge folks say that "help will be happier cleaning with Cindet." Although we cannot imagine anybody becoming uproariously happy while scrubbing a floor or such, we feel that if they say so we'll take their word for it. Congratulations to Karl Dolge, raconteur, judge of fine horse flesh and wine, and prez of the company, and his co-conspirator, Clarence Weirich, the John Barrymore of the sanitary chemical racket and currently prez of CSMA.

* * *

Jet planes can boost their speeds by 40 miles per hour by waxing their exteriors with ordinary floor wax. Seems that it makes them slip through the air easier. This is why Beacon Wax Co. sponsored Mrs. Barbara Cloud, "The Flying Housewife," in the All Women's Transcontinental Air Race July 3 at Lawrence, Mass. It seems that the idea of waxing an airplane to make it fly faster came from Mrs. Cloud,—rather an appropriate cognomen for a lady flier,—and she went to the Beacon people and they told her to use their regular floor wax. Having wagered a couple of bucks recently on nags at the racetrack with outstanding lack of success, we too are thinking about approaching Beacon with the idea of trying out floor wax on horses.

* * *

When Don Alan Frascinella was born June 22 last at the Horace Harding Hospital in Queens, N.Y.C., the little bloke came into the world with quite a background of soap industry stuff and all that. The new baby's dad is S. T. Frascinella otherwise known as "Ted" who is a member of the staff of the Soap Assn., otherwise known as the Association of American Soap & Glycerine Producers. Mrs. Frascinella is the former Lillian Zuckerman who also was a member of the association staff for five years. So when Don Alan grows up, if he goes into the soap business, at least we shall know that he was forewarned.

* * *

From Japan comes word that a bar of soap has been unearthed recently from some of the ruins of Hiroshima and that said soap had been petrified "like a mineral fossil." The newspaper heading stated: "Soap cake petrified by A-Bomb." The report went on to say that when struck with a hammer, the "petrified" soap was not dented and emitted a sound like solid steel. The specimen is being studied at Hiroshima University. Now, maybe the atomic bomb dropped on Hiroshima during the war was responsible for this rock-like bar of soap. However, remembering some bars of soap which we observed during the war right here in the U.S.A., we wonder if the A-bomb necessarily may be the sole cause of this "petrified mineral fossil." We often suspected that some war-time soaps were made essentially from petrified something or other.

* * *

The 1953 season for honorary degrees for the big brass in industry was an active one. A few top men in and around the chemical, soap, etc., fields were so honored. Off hand, we note that various and sundry universities selected the following for special degrees this year: Al Forster, prez of Hercules Powder, Doctor of Laws from U. of Delaware; Ed Little, Colgate-Palmolive-Peet Co., board chairman, Doctor of Laws from Davidson College, Davidson, N. C., his native state; Warren Kinsman, DuPont vice-prez and director of sales, Doctor of Laws from Wesleyan, his undergraduate college; Earl W. Bennet, Dow Chemical board chairman, Doctor of Engineering from Michigan College of Mining & Engineering; Ernie Hart, executive vice-prez, Chemical Divisions, Food Machinery & Chem. Corp., Doctor of Agriculture from Michigan State College.

* * *

British health authorities are looking into the effects of the widening use of synthetic detergents,—if any. The Government has ordered a committee representing medical and industrial interests to look for any evidence of increased dermatitis among the people. Complaints in Commons that the detergent industry is guilty of public damage "in terms of corrosion of fitments" will also be investigated. In ordinary Americanese, "fitments" means plumbing. The American Congress has no monopoly on this investigation business, has it?

* * *

If you don't like it here in the U.S.A., spend a few months kicking around Europe and you will change your opinion. We have it on no better authority than Irving Wexler, president of the Buckingham Wax Co., Long Island City, that "there is no place in the world like the good, old U.S.A." After traveling around Europe for the past three months, he sent us word from Paris that he is getting back to these shores and the wax business just about as fast as a bird can fly.

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